

WELL-TIP.

NORFOLK COUNTY AGRICULTURAL

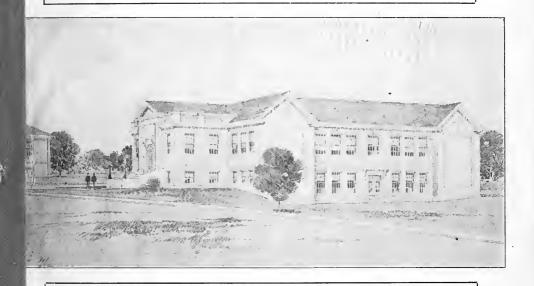
AND HOME MAKING BULLETIN

VOL. 1

JUNE. 1917

NO. 1

Entered as second class matter at the Post Office, Walpole, Mass., under the act of March 3, 1879,



PUBLISHED BY THE NORFOLK COUNTY AGRICULTURAL SCHOOL, WALPOLE, MASS.

SCHOOL STAFF.

FREDERIC W. KINGMAN	.Director
LAURENCE A. BEVAN	. Market Gardening
CAREY W. CARRICK	. Poultry Husbandry
HORACE C. FUNK	. Animal Husbandry
CHARLES W. KEMP	.Weymouth Dept.

EXTENSION SERVICE

WILLARD A. MUNSON	
STELLA S. SIMONDS	
JOHN T. DIZER Boys' and Girls' Club Leader	r

COUNTY HOME DEMONSTRATION AGENT.

The Trustees and Director of the Norfolk County Agricultural School announce the appointment of Miss Stella S. Simonds of Worcester, Head of the Home Economics Department in the Arlington High School, to the position of Home Demonstration Agent for Norfolk County.

Miss Simonds is a graduate of Worcester English High School, Cushing Academy (Ashburnham, Mass...) and the Household Arts Department of the Framingham Normal School, and has studied at Columbia University and Simmons College. She has taught home-making courses for two years in the Dover, N. H., High School, and for nearly two years in Arlington.

The co-operating agencies in the conduct of this home demonstration work are the Norfolk County Agricultural School, the Massachusetts Board of Education, the Massachusetts Agricultural College, and the U. S. Department of Agriculture.

It is the aim of this department to further the interests of the home throughout the county. We believe that this can best be accomplished by co-operating with the different clubs and organizations in the county as the Grange, Woman's Clubs, District and School Nurse Associations, Parent-Teacher Associations, Boys' and Girls' Clubs, Conservation Committees and other groups of people interested.

We are anxious to help in the present food conservation movement. The Home Demonstration Agent will give talks and demonstrations on food values, menu-making, food economy, and elimination of waste, canning and preservation of foods, and subjects relating to household management and household sanitation.

If we can be of service to you, communicate with Miss Stella S. Simonds, County Home Demonstration Agent, Norfolk County Agricultural School, Walpole, Mass. Telephone 268.

Provision has been made to supply a limited number of glass jars at the rate of 5 1-2c each for pint jars, and 6 1-2c each for quart jars. These jars may be obtained from the Norfolk County Agricultural School.

Boys' and Girls' Club Leader.

Mr. John T. Dizer of East Weymouth, a graduate of the Massachusetts Agricultural College, 1917, recently appointed to the position of County Boys' and Girls' Club Leader has entered upon an active campaign in organizing the pupils of the public schools.

Mr. Dizer is giving special attention to the towns without local garden supervision.

Please advise us if he can be of assistance to you.

More Poultry in 1917.

Good soil, favorable climate, and market facilities are three factors which contribute largely to successful poultry keeping. Norfolk County is very fortunate in having such a combination. We have especially excellent opportunities in our markets both for prices and accessibility. With such natural advantages there is no reason why this should not become a great poultry section.

In co-operation with the Massachusetts Agricultural College a survey was recently made of the poultry conditions in the county, a report of which follows:

Profit Over Cost of Reeding for 100 General Purpose Pullets.

1915-16 and 1916-17.

Leco	Amt.	Cost		. Returns		Profit
	Used	3/24/16	3/24/17			
Grain,	51	68.	1.30	'16 Eggs, 11 doz. at 31c, Manure, 50 lbs. at 1/2c,	\$3.41 .25	\$3.66 1.78
Mash,	53	92:	22		3.66	1.88
Mangels, .	20	20.	20	'17 Eggs, 11 doz. at 36c, Manure,	3.96	4.21 2.36
Straw, Grit and Shell,	24	.24	.24		4.21	1.85
Total,		1.78	2.36	Diff. 58e or 33%		Diff 3e

Amount of food consumed per chick to 6 months.

1-12 weeks,	7.37	7.16
3-17 weeks,	9.28	6.78
3-26 weeks,	16.20	13.58
	32.85 lbs.	27.50



DAIRY SURVEY.

The Farm Bureau has recently assisted the Massachusetts Agricultural College in its endeavor to secure accurate figures from 30 milk producers of Norfolk County. These figures are to be used with those from 175 other dairy farmers of the state in determining the actual cost of producing a quart of milk.

Reports are circulating which give evidence that a shortage of milk is to be encountered during the coming fall. If this does happen it will be due to the increased cost of milk production, caused by the high price of labor and grain. The dairyman is unable to cope with this situation as the advances in the price he has received for milk have not been equal to cost of production.

Consumers of milk have been slow to realize its real food value and that it is a source of nutrition which is hard to equal for children and invalids, as well as for healthy adults. There are few foods that will furnish as much actual nourishment for the money they cost as will milk and the products made from it, yet people complain more when milk rises in price than when values of other food products rise. In order for the farmer to keep on producing it he must have a fair price if he is to stay in the business.

"The following table, compiled by specialists of the Department of Agriculture, shows the quantities of various foods needed to supply as much protein or energy as one quart of milk:

Protein.	Energy.
1 quart of milk	1 quart of milk
7 ounces of sirloin steak	11 ounces of sirloin steak
6 ounces of round steak	12 ounces of round steak
4.3 eggs	' 8 1-2 eggs
8.6 ounces of fowl	10.7 ounces of fowl

Another method of comparison is shown by the table below, in which the relative value of certain foods, as economical sources of protein, is given.

Milk at	Is as cheap as sirloin steak at	Or eggs at
		-
7 cents a quart	16.3 cents a pound	·17.6 cents a dozen
8 cents a quart	18.3 cents a pound	20.1 cents a dozen
9 cents a quart	21.0 cents a pound	22.6 cents a dozen
10 cents a quart	23.3 cents a pound	· 25.1 cents a dozen
12 cents a quart	27.9 cents a pound	30.2 cents a dozen
15 cents a quart	34.9 cents a pound	37.7 cents a dozen

According to this table, if milk is selling at 10 cents a quart, sirloin steak must sell as low as 23.3 cents a pound, and eggs at 25.1 cents dozen, to supply protein at equal cost.

To supply energy at equal cost.

	Sirloin steak must	And eggs not
When milk is	not be more than	more than
7 cents a quart .	9.9 cents a pound	9.3 cents a dozen
8 cents a aquart	11.3 cents a pound	10.6 cents a dozen
9 cents a quart	12.8 cents a pound	11.9 cents a dozen
10 cents a quart	14.2 cents a pound	13.2 cents a dozen
12 cents a quart	17.0 cents a pound	15.9 cents a dozen
15 cents a quart	21.3 cents a pound	19.8 cents a dozen

It can be seen, therefore, that milk even at 15 cents a quart is a cheap source of energy as compared with sirloin steak and eggs.

In comparing foods it is necessary to consider both the protein and the energy furnished. Neither one alone can properly be used as a basis of comparison, nor is there any correct way to reckon the value of a food by considering the total amount of nutritive elements."

CANNING BY THE COLD PACK METHOD.

With the unprecedented shortage in our food supply, people are very generally realizing the need this year of an increase in food production and conservation. One very essential way in which foods may be conserved is by canning the surplus product during the season in which it is plentiful. In this way we not only eliminate waste, but we are providing the food which is very necessary for our health and well being during the winter months. As a rule, our general health is better during the summer, due largely to the fact that we eat during the summer months health giving, balanced rations of a vegetable and fruit diet. We need more of these foods during the winter season, and canning makes this possible.

The Cold Pack method of canning has proved itself superior to the other methods of canning for several reasons. It is a quick, simple method, and one of its strongest features is that everything may be canned in this way. Then, too, fruits and vegetables canned by this method are superior in flavor, texture, and color to those canned by the open kettle method. The name "cold pack" seems to need a word of explanation, for it tends to be misleading. It does not mean that the product is canned without the application of heat, but that the cold, raw product is placed in the jar and then cooked after the jar is partially sealed.

The following outline will indicate briefly the steps in the process:

- 1. Grade.
- 2. Scald and blanch.
- 3. Cold plunge.
- 4. Pack in jars.
- 5. Add syrup to fruits;—add hot water to vegetables.
- 6. Adjust rubber and top.
- 7. Partially tighten cover.
- 8. Cook according to time indicated in time table of canning bulletin.
- 9. Remove jars from outfit.
- 10. Tighten covers.
- 11. Invert to cool.

Very complete instructions may be had free of expense by writing to the Agricultural College at Amherst and asking for the canning bulletin.

The idea that a special outfit is necessary for this method of canning is quite wrong. The average home will have in its present equipment enough utensils for the canning process. It is essential to have a kettle with a cover fitting sufficiently tight so that the steam will not escape during the cooking. This kettle must have a false bottom of some sort on which the jars may rest during the cooking, thus allowing the water to circulate underneath the jar as well as around it. This false bottom may be a wire or wooden rack, or if these are not available the ingenious housewife will invent something that will serve the purpose.

The best quality glass jar is the most economical for the purpose. The life of a good glass jar with reasonably careful handling is about five years. It is possible to can successfully in any kind of a jar that can be sealed so that it is airtight.

Familiarity with the use of a certain kind of jar may make one almost dependent upon that jar, but with the increase in cost of glass jars this year it seems as if we should make ourselves adjustable to the use of any available jar.

The failure of many a jar of fruit can be attributed to the use of a poor quality of rubber. Only the best quality rubbers should be used, and no rubber should be used more than one season. Every rubber should be tested for its elasticity before placing it on the jar, for without this quality it cannot serve its purpose. It is cheaper to throw the rubber away than to be obliged to waste a jar of fruit because an inferior rubber is used.

The quality of the fruit or vegetable canned has much to do with the resulting product. Naturally, we cannot expect to have a good product after canning if we have started with a poor one. Our motto in all our canning work should be "Straight from the vine to the can." It is desirable that we follow this for all canning, but it is essential that we follow it to the letter in canning peas, beans, and corn.

The storage of our canned foods is a point that we should consider. It is true that not all of us have places that are satisfactory for storing, but if we know what are ideal conditions we can strive for them. A dark dry place is best for this purpose. It must be remembered that all red fruits except tomatoes will fade if exposed to the light. Covering jars with paper helps to keep them from dust, moisture, and light.

Any jar properly sealed and sterilized will keep as long as the jar remains airtight. It is often kept for several years in this condition. At other times, after several months the rubber for some reason may become rotted, thus allowing air to enter the can. After this happens food can no longer be kept.

Let us aim to do our share in the present crisis "to make every family more self-supporting" by providing our winter supply of canned goods.

The County Home Demonstration Agent at the Norfolk County Agricultural School will gladly give canning demonstrations to groups of women who wish this information.

SPRAYING CAMPAIGN.

Last season a state wide spraying campaign was carried on by the Farm Bureaus and the Massachusetts Agricultural College co-operating. This campaign was to demonstrate the value of spraying and the fact that it not only made better fruit possible but that it greatly increased the yield and profit.

The demonstration was a success and the following summary gives the results:

Value of apples per tree sprayed,	\$6.85
Value of apples per tree unsprayed,	1.83
Difference,	5:02
Cost of spraying per tree,	0.52
Profit from spraying,	4.50
Increase in barrels,	1.4

If you are the owner of a fruit orchard and are not in the habit of spraying it will pay you to study these figures. From all over the state these figures were taken on average farms and under farm conditions. The increase of 1.4 barrels of apples makes it plain that spraying pays.

Good sound fruit free from scab and other fungus diseases is attractive in the market, will keep and sell better than the unsound, scab covered product which is liable to be the result of unsprayed or poorly sprayed trees.

The Farm Bureau can furnish information regarding the materials to use and when to spray.

BOYS' AND GIRLS' CLUB WORK.

In the Boys' and Girls' Club Work the Pig Club leads in members with the Market Gardens Club second. Two towns have pig clubs with nearly a hundred members each while in several other places there are clubs with twenty to thirty members.

The interest of the children seems to be directly proportional to the interest of the adults. In towns where some well known organization or the school system is backing the work, the results are the most promising.

Where paid supervisors are already at work, the laying out of gardens and the general club organization are exceptionally well taken care of. In several towns, for the last few years childrens' gardens have been inspected and supervised by local volunteer committees. The interest has been so great however, and the demand on the committees' time so much increased, that volunteer supervison has given way to paid supervisors who devote their full time to the work.

Some few towns are not actively pushing strictly boys' or girls' gardens but are making all gardening family affairs.

Canning clubs among the girls are also receiving special emphasis because of their value in the food conservation campaign. In addition to those already mentioned the potato, corn and poultry clubs have members in many towns.

For those boys and girls, who do not have the land for large market gardens, smaller garden clubs are being handled as local groups in some towns, with special supervisors and prizes.

CULTIVATION OF CROPS.

It is not always necessary to wait for the crop to appear above ground before starting to cultivate. This is especially true with corn and potatoes. These two crops can be cultivated once or twice before they come up, with a light harrow or weeder. Farmers often go over their fields after these crops are up three or four inches. It is best to do this near the middle of the day, as the plants are more pliable.

Early cultivation is the easiest and cheapest way to kill weeds. If they are allowed to get a start and root firmly, it necessitates much deeper cultivation to control them. This deep cultivation oftentimes will break and disturb the roots of corn plants and should not be done after the corn is a foot high.

Even more important than destroying weeds, timely cultivation is beneficial in preventing the loss of moisture by evaporation and also in hastening the warming of the soil by allowing air to enter. The loss of soil moisture by evaporation continues much longer from a compact, damp surface, than from a loose dry surface, and the evaporation tends to keep the soil cold.

Cultivation after heavy rains is a good practice. To be most effective the cultivation should be done as soon as the surface is dry enough to work well. If the soil is allowed to dry until it breaks up cloddy much moisture will be lost, and a good mulch cannot be obtained.

Some of the beneficial effects of cultivation are as follows:

- 1. It conserves soil moisture by checking its rise to the soil surface.
- 2. It kills weeds, thereby preventing them from robbing the crop of moisture and fertility.

- 3. It puts the soil surface in condition to take in rainfall, thus preventing its running off, causing erosion and loss of fertility.
 - 4. The soil warms quickly by drying the surface.

GARDEN SUGGESTIONS.

For farm labor High School boys can render valuable service if we are patient with them, and do not expect too much at first. There are exceptions, but most boys are earnest and willing to learn; if we can be tactful the boy will have some of the best schooling of his life.

Peas should be bushed when eight inches high.

To get the most from gardens there should be successive plantings of corn, beans, peas, lettuce and radishes, from ten days to two weeks apart.

Water tomatoes thoroughly before setting them out, as this prevents roots from drying when they are transplanted. Set plants deeper than in the seed bed. It is best to transplant on a cloudy day, or else in the late afternoon. Be sure to firm soil well around the plants so as to bring the moisture in close contact with the root system.

New Zealand Spinach.

This plant is entirely different from the common type of spinach. New Zealand spinach forms a large branching plant that grows all summer and spreads two to three feet in diameter. Plant in the spring and it will endure the heat of the summer. Plant seed in rows three feet apart, and thin the plants to one or two feet apart in the rows. Cultivate thoroughly and when plants attain a good size cut tender tips, which with the leaves make a fine green.



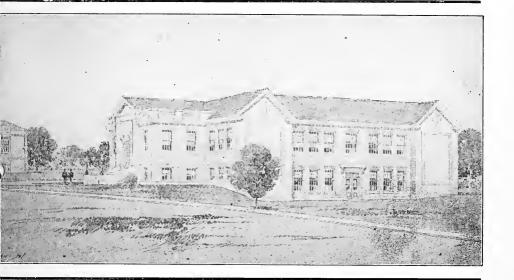
NORFOLK COUNTY AGRICULTURAL AND HOME MAKING BULLETIN

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SCHOOL STAFF
FREDERIC W. KINGMAN
BENJAMIN R. GRAVESPoultry Husbandry
MALCOLM D. CAMPBELLAnimal Husbandry
JAMES SALTER
ANDREW N. SCHWAB
MARY E. SHEPARDSec'y and Accountant
FARM BUREAU DEPARTMENT
FREDERIC W. KINGMAN
FREDERIC W. KINGMAN
STELLA S. SIMONDS
EUNICE H. HOMERAsst. Home Demonstration Agent
JOHN T. DIZERBoys' and Girls' Club Leader

CT.

Norfolk County

Spring Term of Agricultural School Closes

The school sessions of the third year of the Norfolk County Agricultural School closed May 2nd with an attendance of twenty regular students and ten part time students.

The Weymouth Department with an enrolment of ten students will continue its sessions for another month.

The roster of students follows:

Name	Year	Town	Project
Harold Burr	First	Bellingham	Home Farm
Chester Gaskill	Second	Bellingham	Home Gardens
Wm. Law	Second	Foxboro	Home Farm and Poultry
Walter Aptt	First	Franklin	Garden
Clinton Rockwood	Third	Norfolk	Poultry, Garden, Fruit
Carl Wiklund	Third	Norfolk	Corn project at home. Em-
			ployed at Agric. School
Joseph Blanchard	First	Sherborn	Home Garden and Poultry
Wm. Fisher	First	No. Attleboro	Poultry, employed on Town
36 1 511 = 3	~ .		Farm
Moody Richardson	Second		Home Farm
Melvin Pagington	Second	Millis	Home Gardens
Leon Regan	Third	Walpole	Poultry, Pigs, Garden at
	m1 . 1	*** 1 1	Home, Works on Farm
Henry Egner	Third	Walpole	Home Farm, and Agric.
Authur Dones	Eli mad	Walmala	School
Arthur Papas	First	Walpole	Home Farm
John Erikson	First	Dorchester	Agric. School
Joseph Roche	First	Hyde Park	Home Garden, Poultry, 1
			acre at Agric. School in
Nelson Pratt	Third	Cohossat	Corn, Beans and Potatoes
Neison Fiatt	1111111	Cohasset	Lewis Farm, Walpole, Home
			- Garden

Soldier Students Placed in School by Federal Vocational Education Board

Frank Lounsbury First Cambridge Poultry
William Vayo First Worcester Poultry
Stanley Komla First Cambridge General Farming, Pigs
Guy C. Marden First Rockland Garden and Poultry

Rents a place in Walpole. Has wife and four children. The last two men were gassed at Chateau Thierry.

Part Time Students

Name	Year	Town	Project
Donald Brimner	First	Walpole	Garden and Poultry
Wm. Broadley	First	Walpole	Garden
John F. King	First	Walpole	Garden and Poultry
Wm. Wheeler	First	Walpole	Garden and Farm Work
Warren L. Milliken	First	Walpole	Garden
Marion Chandler	First	Walpole	Garden
Ellen Egner	First	Walpole	Garden
Lois Foster	First	Walpole	Garden
Mary Hennessey	First	Walpole	Garden
Alice Riordan	First	Walpole	Garden
Those students a	ro rogula	rly enrolled	members of Walnole High School

These students are regularly enrolled members of Walpole High School. They come to Agric. School three afternoons each week.

Weymouth Department

Name	Year	Project
Wm. Nolan	Third	Poultry
Robert Polson	Third	Poultry
Adrian D. Barnes	Second	Poultry and Garden
Thomas Chisholm	Second	Dairy
Edward Dwyer	\mathbf{Second}	Garden and Pigs
Herbert P. Keene	Second	Garden
Fred Price	First	Pigs, Poultry, Cow, Sheep
Winfield Price	First	Garden
George Rand	First	Poultry
Paul J. Sullivan	First	Poultry

All of these students live in the Town of Weymouth.

Agricultural Department

The Garden

Make succession plantings of Bush Beans and Sweet Corn. Sow seeds of Cabbage, Celery, Cauliflower for fall and winter use, some time during

the month, 10th to the 20th is about right.

Tomatoes that were planted out the last week of last month should be encouraged with a light stirring of the soil around them; this also applies to Cueumbers, Melons, Eggplants and Peppers. An application of Nitrate of Soda, (1 oz. to a gal. of water) will be very helpful to each of the above kinds of vegetables, or liquid manure, applied in weak solution once each week for three or four weeks, may be used instead of Nitrate of Soda.

Liquid Manure

Liquid manure of course varies in strength, depending largely upon

the source of supply.

Sometimes the garden operator depends upon the soakings from the manure pile which may accumulate in the farm cellar, and perhaps varying amounts of water may have soaked in from the outside, and the fertilizing material is seldom of the same strength. A liquid manure of fairly uniform strength may be made as follows: Take 1 bushel of cow manure and 1 peck of hen manure and place in a barrel; add water sufficient to cover; let stand for twelve hours, or over night, pulverize thoroughly and add water enough to fill the barrel; cover and let it stand for one week. The material is then ready for use. Dilute 1 part of the liquid with 3 parts of water. At this strength it is perfectly safe to use on all kinds of plants.

Keep the cultivator busy. Attend to thinning and transplanting. Prevent damage from insects and fungous disease by timely spraying.

Potatoes

The late potatoes should be planted at once, if not already in the ground. Remember, a thorough preparation of the soil, with ample plant food added, is essential to success.

Floriculture

Sometime during the month, sow seeds of Pansy, Sweet William. Delphinium, Foxglove, Canterbury Bells, etc., for next season's flowering. Make a fine seed bed in the cold frame, and after sowing and watering,

shade the soil with cheese cloth or similar material stretched across the frame. This prevents a too rapid drying out of the soil, which at this season is likely to occur. As soon as the young plants are showing up, they must be gradually given more sunlight until the covering can be taken off entirely. Allow plenty of air at all times. As soon as the roses are through blooming, encourage them to make a vigorous growth by giving the bed a good soaking of liquid manure; about three applications at intervals of two weeks.

Attend to the staking and tying of all plants in the perennial garden, that require it. Sweet Peas should be climbing the brush by this time. A good mulch of strawy manure applied each side of the row will assist in keeping the soil cool and preventing the evaporation of moisture. When Sweet Peas are blooming, keep all flowers picked off and do not allow any

to go to seed. Seed production reduces the flowering season.

Poultry Department

Get Ahead of the Mites

There are eighteen species of mites parasitic upon the domestic fowl. However, only four of these are very injurious.

The ordinary red mite visits the hen only to feed, and spends the re-

mainder of his time on the under sides of the roost, in cracks and crevices and under droppings or other filth material.

Mites breed in filthy houses and reproduce very rapidly in spring and

The presence of mites is indicated in several ways; by the dejected, emaciated appearance of the hens; as a white powder on the perches and

by a characteristic filthy odor.

The first step in the eradication of these posts is to thoroughly ventilate and clean the poultry house, removing the droppings and all filthy nesting material, spray or paint the perches, nests, walls and floors with some disinfecting solution, such as 5% solution of Cresol; a mixture of three parts kerosene and one part of crude carbolic acid; a spray of kerosene emulsion, a mixture of two parts kerosene and one part creosote; at some of the egg laying contests, a solution consisting of one part of Carbolenium and two or three parts of kerosene has produced good results. With any of the above mentioned solutions, it is necessary to make at least two applications at intervals of a few days to destroy the mites which hatch after the first application.

Cleaning Around the Poultry Plant

Have you cleaned around the poultry plant? Have you raked last year's corn cobs out of the yard? A poultry plant can look just as nice and attractive as the front lawn. Let's call this "Clean-up month."

Do your buildings need a coat of paint? Paint not only adds to the

appearance of a building but it also preserves the wood.

Are you planning to erect any more buildings? Better get the material on hand. Pullets ought to be housed at least three weeks before they Plan to have all the buildings in rows. Sometimes the buildings can be erected on a line with the others, but if this is not possible, they may be erected on a line parallel to the first line.

A clean, orderly, well kept plant may attract prospective customers.

On the evening of May 2nd, the members of the Norwood Poultry Association enjoyed an excellent talk on "The Poultry Outlook for New England" given by Mr. W. A. Monahan of the Massachusetts Agricultural

Do you belong to this Association? Better put your name on the waiting list.

For Sale

Rhode Island Red and Barred Plymouth Rock hatching eggs, \$10.00 per

Rhode Island Red and Barred Plymouth Rock Baby chicks, \$22.00 per hundred.

The Schreiter Poultry Farm, 358 Main Street,

Telephone Walpole 193-3

Walpole, Mass. B. R. G.

Bee Keeping

By the first week in June, the colony should have reached its greatest population, in order to secure the maximum yield from the clover crop. Even when a second hive body is added, to allow for expansion, the bees will follow their natural impulse and make preparations to swarm. secret of successsful beekeeping is to avoid any reduction of workers during the greatest honey flow. To do this, it will be necessary to go through the colony once a week and remove any queen cells that are forming, since if queen cells are well advanced, their removal is not so effective in preventing swarming.

In these manipulations the bees should be handled so that their work is distributed as little as possible. Bees are more easily handled in the forenoon than later, as at that time only the young bees are in the hive and they are not as troublesome as the field bees. Pick out a warm, still Use enough smoke to keep the bees from coming up over the tops of the frames, by an occasional puff, but avoid too much smoke as it disorganizes the colony. Avoid jarring of colony and hasty movements, as a bee cannot readily see a slowly moving object, but will dart for one

moving rapidly.

If stung, scrape out the sting, but by no means squeeze the poison There can be no treatment for stings, as it takes but thirty seconds for blood to go from periphery to heart and into circulation again. Put honey on the place stung to cover the odor of the poison which may cause more disturbance.

M. D. C.

Home Making Department

Women in Norfolk County Decide to Keep a Record of Family Expenditures

HOUSEHOLD ACCOUNT BOOKS ARE BEING INTRODUCED IN FORTY
HOMES AS A MEANS OF CHECKING UP THE LEAKS

Thrift is in the air. It is being advocated by the United States Treasury Department in order that we may be a more frugal nation, and so that as individuals we may aspire to something more than to make the income barely meet our living expenses. Liberty Loans, income taxes, and high prices have made the housewife realize that some drastic measures must be adopted to make the income suffice. Keeping a record of expenditures is the logical way of checking up current expenses, and

serves as a guide for a wiser disposition of our money.

The value and methods of keeping household accounts were discussed with groups of women in Canton, Foxboro, Franklin, Holbrook, Millis and Westwood during the month of April. Miss Gifford of the Massachusetts Agricultural College explained the new household account book which the State Agricultural College has just published. Forty account books were ordered, as a result of these conferences, and records will be kept by these women as soon as the books are received. A supply of account books will be kept at the Farm Bureau Office and will be sold for 15c apiece. The Home Demonstration Agent will be glad to supply you with one of these books, explain its use, and assist individuals if they encounter difficulties in using it.

Warm Weather Dishes

SALADS AND SANDWICHES AGAIN BECOME POPULAR AS SUMMER WEATHER APPROACHES

Milk still continues to be abundant throughout the state, and in order to encourage an adequate production of this very valuable food, the demand must equal the supply. To maintain the best health, there should be supplied daily in every home a quart of milk for each child and a pint for each adult. It is not necessary that the milk be taken in liquid form, in order to realize its full value as a food. The ingenious housewife will use it in many combinations and not feel that she has exhausted her resourcefulness until she has made it into cottage cheese and used it in a variety of ways.

Cream cheese or cottage cheese lends itself very well as the foundation for sandwich fillings and as principle ingredient of salads. The following recipes, taken from the U. S. Department of Agriculture bulletins, suggest combinations of fruits and vegetables with cottage cheese which will give a

welcome variety to our summer diet.

MAYONNAISE DRESSING WITH COTTAGE CHEESE

To a thick mayonnaise dressing made with the usual quantity of oil and eggs, add a half cup of fine grained cottage cheese and mix thoroughly. This dressing will keep some time without separating.

COOKED SALAD DRESSING WITH COTTAGE CHEESE

 ½ T. Mustard
 ½ t. Paprika

 ½ T. Salt
 4 T. Cottage Cheese

 2 T. Flour
 ½ t. Soda

 1 T. Sugar
 1 Egg

 ¾ Cup Sweet Milk
 2 T. Oleomargarine

 1/3 Cup Vinegar

Rub the dry ingredients together and add the egg yolks slightly beaten. Add melted fat, cold milk and hot vinegar in the order named, stirring until perfectly smooth. Cook the mixture in a double boiler until thickened. To the stiffly beaten egg white add 4 T. cottage cheese, which has first been neutralized with the soda and fold the mixture into the cooked dressing. Set the pan into a bowl of cold water and beat until cool and smooth.

CHEESE WITH SALADS

Cheese or cheese dishes are an acceptable addition to salads. Cheese balls are often served with salad. They are made of soft cream cheese and are frequently combined with chopped chives, olives, sweet peppers, chopped nuts, etc., for the sake of adding flavor. It the balls are rolled with chopped chives or parsley, both flavor and color are supplied.

PLAIN CHEESE SALAD

Cut the cheese into small pieces and scatter over lettuce leaves. Serve with French or Mayonnaise dressing.

GREEN PEPPER AND CHEESE SALAD

Blanch green sweet peppers, cut off large ends, remove centres and put peppers on ice. Mix with the cheese and ¼ t. salt, dash of paprika and 6 stuffed olives chopped fine. While soft, press into the hollowed peppers, chill, and cut into slices. Serve on lettuce leaves with Mayonnaise.

CHEESE AND DATE SALAD

Select large, firm dates; wash, drain and stone. Stuff with cream cheese, season with salt and paprika. Chill and serve on a nest of lettuce leaves with Mayonnaise dressing.

PINEAPPLE AND CHEESE SALAD

Place slices of pineapple on lettuce leaves and cover with slices or balls of cheese. Garnish with canned pimiento and serve with Mayonnaise dressing.

VARIATIONS FOR SANDWICH FILLINGS

Cheese may be combined with pimientos, horse radish, chopped or sliced olives, whole or chopped nuts, sliced celery, chives, Spanish onions, raisins, dates, jelly or marmalade. These additions may be blended with the cheese or may be spread in a layer over it.

CHEESE-DATE-NUT SANDWICH

Season cream cheese with chopped dates and nuts and serve as sandwich filling between slices of bread or graham crackers.

TOASTED CHEESE SANDWICH

Plain bread and butter sandwiches with fairly thick slices of cheese put between the slices are frequently toasted, and on picnics or at chaing dish suppers, are often browned in pan in which bacon has been fried.

SHRIMP SANDWICH FILLING

1 can of shrimp2 hard boiled eggs½ c. cottage cheese

10 stuffed olives Salad dressing

Chop ingredients, mix with salad dressing and season.

Help Your Community to Become Flyless

NOW IS THE TIME TO PREVENT THE SPREAD OF DISEASE BY KILLING THE FIRST FLIES BEFORE THEY MULTIPLY

Many people consider the flies a necessary evil and a pest that is bound to be with us during the summer and fall months. They are indeed an evil, but necessary only to the extent that we allow them through our carelessness.

In its habits the fly is probably the most objectionable insect with which we come in contact. It not only breeds in filth, but it continues to frequent objectionable material throughout its existence, leaving it only to contaminate our food and spread disease among people.

Flies are extremely prolific and breed in organic filth, such as horse manure, decaying vegetables, kitchen refuse and animal excreta. The breeding season begins during May and continues until September.

We should consider the fly in its true light as a disease spreader and an annoyance that should not be tolerated. Investigations show that the fly killed more American soldiers in the Spanish-American War than the bullets of the Spaniards, and was the direct cause of much of the typhoid fever in the United States last year. Typhoid fever, tuberculosis, cholera, dysentery and intestinal diseases are all conveyed by the fly.

Every community and every individual in the community should take measures to fight and exterminate the fly, by reporting manure piles and dead animals to the health officer, by removing all garbage and keeping yards clean, by screening windows, doors, and porches, by trapping the fly before he gets into the house, by using sticky fly paper, and the fly swatter and by keeping continually at it.

A very simple and efficient fly trap can easily be made by the younger members of the family. Every stable and room that flies haunt should be provided with one. Are you interested in the directions for making this fly trap? The Home Demonstration Agent will send you these directions.

Are You Acquainted With the County Market Bureau?

WE CAN HELP YOU OBTAIN FRUITS AND VEGETABLES IN QUANTITY FOR PRESERVATION WORK

Since one of the requirements for successful canning is that fruits and vegetables must be at their best and freshly picked, requests have often come to the Farm Bureau for information regarding the purchasing of various fruits and vegetables in quantity for preservation. In answer to these inquiries, the names of producers in and around Norfolk County have been assembled and filed, the file being placed at the Norfolk County Agricultural School, Walpole, Mass. Telephone, Walpole 268.

The file has been so arranged that it is possible to tell the kinds of products available in each town, the various towns where each product may be purchased and the kinds of products grown by each producer

listed.

This information bureau can be of value to the people of Norfolk County only as they became acquainted with it. Will you not tell your neighbors and friends of the bureau and let us help them in procuring fruits and vegetables for preservation.

Recipes That Are Tried and True to Appear in Monthly Bulletin

WOMEN THROUGHOUT THE COUNTY ARE CONTRIBUTING FAVORITE RECIPES TO THE HOME MAKING DEPARTMENT

Every housewife has her favorite recipe or recipes, which are a bit unusual and which her family think are a little better than they have anywhere else. Most women are glad to pass these recipes on and every housewife is delighted to get a choice recipe that has proved its worth in some other home. We are asking the women of Norfolk County to send in their best recipes to the Home Making Department so that they may be published during the coming months in our monthly bulletin. Will you not co-operate with us, send to the Home Demonstration Agent your pet recipe and encourage your neighbors to do the same?

Summer Time Means Preservation Time

HOUSEWIVES ARE BEGINNING TO LOOK OVER THEIR SUPPLY OF JARS TO MAKE DEFINITE PLANS FOR PRESERVING

Last year we canned because it was our patriotic duty to help increase the food supply. This year we are going to can because we have found out how much superior home canned products are to those commercially canned. We know from our last year's experience the variety of fruits and vegetables that we will wish to can, and how many jars of each will be needed to carry the family through the winter months.

Every family has enjoyed the variety in the winter menu which canning makes possible. One woman said a short time ago, that their garden would not be such a treat this summer as they have had such a variety of canned

summer vegetables all winter.

Canning by the cold-pack method has proved itself to be the most desirable methods of canning, but directions must be reliable and explicitly followed in order to obtain good results. Timetables and directions given in last year's Government bulletins can be followed in safety. Previous bulletins should not be consulted, for experimental work has made it necessary to make some changes in the early bulletins.

The Home Demonstration Agent has a supply of Government Canning and Drying bulletins and will send these to anyone wishing them. Personal assistance will also be given anyone who is unfamiliar with the

canning process, or who has had failures in previous attempts.

S. S. S.

Junior Extension Department

Training for Home Making Results from Home Economics Club Contest

How many hours a day do we waste? Many of us have read Arnold Bennett's book, entitled "How to Live on Twenty-four Hours a Day," but never did we count the hours so carefully as did the Home Economics Club boys and girls in reckoning their sixty hours of household work! Over three hundred club members from fifteen towns of Norfolk County have spent many thousands of hours in profitable employment during the past three months. That they have thoroughly enjoyed their work, is apparent from the very titles of their stories, which have been sent in as a last requirement of the contest: "Work Turned to Play," "Three Happy Months," "Helping Mother" "How I Learned to Like Dish Washing" and the like. That their mothers have been appreciative of their assistance in the family baking, mending, garment making and tasks about the home, is learned from the testimonies written on the record sheets by the parents. That the communities realize the value of this type of education for the future home makers of the country, is indicated by the interest of those who have attended the exhibits.

From the reports sent in to the County Success Club Home Economics Chairman, approximately 20,100 hours have been spent during the past three months in work which is training young people for the home. Over 5,000 loaves of bread were made. It is not possible to give accurate figures at this time, but an immense amount of work has been done of which the value is very far reaching.

Great credit is due the local leaders who assist the clubs in every possible way, giving freely of their time and energy. In co-operation with the exhibit committees chosen from the club members, attractive programs were arranged at the exhibits in the following towns: Canton, Dedham,

Franklin, Holbrook, Medway, Millis, Needham, Randolph, Walpole and Weymouth. The following programs are illustrative of the general entertainment given in most clubs:

Needham-by the "Make it Win," "Stiktuit" and "Household Guards"

clubs.
Song and Cheer
"Home Economics Experiences"
"How I Made A Middy Blouse"
Song and Cheer
"Teaching How To Make a Darn"
Awarding Prizes
Demonstration, Pineapple Tapioca Pudding
"How I Make a Cake"
Song and Cheer

"Household Guards"
Frances Crawley
Audrey Jones
"Make It Win Club"
Francis Kroll
Asst. County Club Leader
Gertrude Thompson
Isabelle McAdams

"Stiktuit" Club

Canton-by the "Good, Better, Best Club" Short Business meeting conducted by President and Secretary. Club Song, "Our Club Will Shine" The Club Story, "Our Skating Party," Jennie Cowan "What Our Club has Done for the Junior Virginia Daniels Red Cross" Solo, "'Til We Meet Again" Dorothy Cowan Chorus by the Club Members Story, "Our Trip to Blue Hill" Story, "The Busy Workman" Song, "Santa Lucia" Kenneth Goding Rollin Helms The Club Violin accompaniment

Story, "My Club Work"

Club Song, (Tune—"Long, Long Trail")

The Club Club Yell

The Club

Afternoon tea served by the "Good, Better Best Club."

Young Citizens

No fear of Bolshevism in this county, if all the boys and girls in the United States were club members, we hear. Why? Simply because the underlying principles of Junior Extension work are the foundations of the home. Back to the home sewing room and home kitchen, is their motto. Do you suppose a boy who is busy raising a pig has time to be filled with unrest and discontent? How about a girl who is counting the minutes that fly by so quickly, as she is learning to enjoy the simple duties of the home? Moreover, these young people are learning civic responsibility which is the exact opposite of socialism. To have a banner or one hundred per cent. club, means a definite sense of duty to others felt by each individual, for if one member fails, the club banner is lost. Therefore, for the sake of others, many a boy or girl struggles on in a club contest, even if it be difficult work.

One result of civic co-operation is shown by community pride. This is illustrated in the smaller unit, the organized club group, by songs and cheers. The names of the clubs and the very words of the songs and cheers are inspirations toward higher standards. It is particularly fine

that they are composed by club members themselves.

Some club songs have already been published. This month comes one more. We hope to receive others from our club members by July first, so that Norfolk County may contribute some good material towards state songs and cheers, to be used at the Eastern States Exposition at Springfield, in September.

Weymouth—"Uncle Sam's Economical Daughters," (Tune—Yankee Doodle)

The members of our little club

Are working slow and steady. They patch, they darn, they sweep and cook, For work they're always ready.

Chorus

1

We've been taught to work and work; We've been taught to never shirk; We've been taught to do our bit, For Uncle Sammy's daughters.

We dust, we wash, we scrub the floor, We do what we are told to; We do the errands at the store, And then we peel potatoes.

Chorus

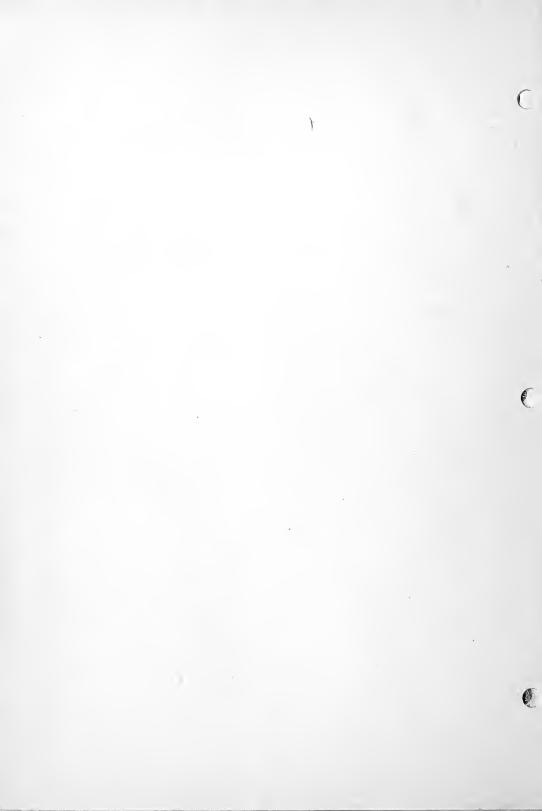
And when you tear your nice new dress, The girls say "Now you'll catch it," But I turn round and say to them, "I'll go right home and patch it."

Chorus

Just see the work and fun you get, All due to this organization. Why don't you try and join next year, And help this great big Nation?

Chorus

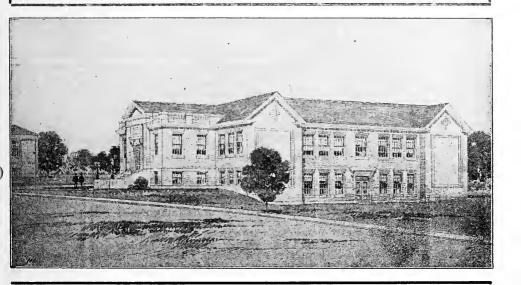
You'll be taught to work and work; You'll be taught to never shirk; You'll be taught to do your bit, For Uncle Sammy's daughters.



NORFOLK COUNTY AGRICULTURAL AND HOME MAKING BULLETIN

VOL. H July, 1919 No. 19

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PUBLISHED BY THE NORFOLK COUNTY AGRICULTURAL SCHOOL, WALPOLE, MASS.

	CHOOL STAFF
FREDERIC W. KINGMAN	
BENJAMIN R. GRAVES	Poultry Husbandry
MALCOLM D. CAMPBELL	Animal Husbandry
JAMES SALTER	Market Gardening
ANDREW N. SCHWAB	Weymouth Dept.
MARY E. SHEPARD	Sec'y and Accountant
FARM BUREAU DEPARTMENT	
	Director
WILLARD A. MUNSON	County Agricultural Agent
CULLIY & CIMUNDS	Home Demonstration Agent

A Review of the First Three Years of the Norfolk County Agricultural School

The Norfolk County Agricultural School began its existence during the early years of the great world war. Before the close of the first year of school the United States declared war. From this time the school was obliged to compete more and more with the industries for students. The high wages offered by industries proved in a number of instances to be too strong an inducement for the students to withstand. Every one connected with the school did his best to show the boys the wisdom of sacrificing present gains for a larger future success. Our efforts were rewarded to this extent, that the more earnest and serious minded in our student body "stuck to their job" and stayed with us.

"stuck to their job" and stayed with us.

In view of attending circumstances such as reduced facilities for travel, increased cost of transportation, the prevalence of influenza, the shortage of skilled teachers we feel that it was an achievement of the first order that the school was kept intact. From reliable sources we learn that no county agricultural school was more successful in holding its students. Other achievements of this administration, besides the success-

ful organization of the school are:

1. The organization of the Farm Bureau Department, with a staff of agents second to no other in Massachusetts for ability, industry and team play. There has been no break in the ranks of the Farm Bureau Agents.

This continuity of service has meant a great deal.

2. The appointment of teachers and other employes who without exception have been re-elected at increased wages. All who have resigned have gone to more lucrative positions. We have sought only men of the highest grade of efficiency.

3. The constantly improving condition of the school farm, a farm which

was very much run down when taken over by the school.

4. The introduction of a system of physical training under the direction of Prof. Ernst Hermann, a noted instructor in this much neglected field of education.

5. The publication of a monthly bulletin containing timely articles relating to the several phases of agriculture, home-making and junior club work. This little paper never fails to appear with its monthly message. No feature of the school's work has been more highly appreciated by the people of the county. These are some of our successes. We know our readers will pardon us for taking a reasonable pride in them.

We earnestly hope that our successor will build upon them and be as heartily sustained by the people of the county as the present administra-

tion has been.

Summer School at Amherst

The twelfth session of the Summer School will begin June 30 and close

July 26

This session of the Summer School will be under the joint direction of the Massachusetts Agricultural College and the Massachusetts Board of Education. The college will offer through its regular staff courses in agriculture, horticulture, related subjects, and home life, and in co-operation with the State Board of Education, vocational agricultural teaching.

The Massachusetts Board of Education will give a number of courses in education, including such subjects as principles of teaching, school management, primary reading, language, and other subjects of interest and value, both to experienced teachers and to those who wish to prepare for teaching.

Agricultural Department

Timely Suggestions

Erect temporary shade devices in poultry yards without trees or shade.

Fresh water and green foods are essential at all times.

Twenty-fifth of July, plant turnips wet or dry.

Do not cultivate beans when foliage is wet. They will become spotted or rusted.

Beware of deep tillage after the plants are well established and the roots well distributed through the soil.

See that the tomato plants are properly staked to keep the fruit off the ground.

Corn, if planted thickly, should be thinned. An abundance of stalks means few ears.

A little soap added to a nicotine spray makes it stick to the plant.

Thinning apples and peaches will produce larger and better fruit.

Cows need grain, even if out to pasture.

A quart of grain before calving, is worth two after.

Keep fresh mineral mixture before the pigs at all times.

Keep roosts and dropping boards free from lice and mites.

A. N. S.

Seed Down Your Land

No one questions the value of a short rotation in increasing the productiveness of our soils. There are large areas of relatively unproductive hay land in Massachusetts which would be improved if the land were manured or fertilized and seeded down at once or after growing one or two cultivated crops.

The following condition has been noted on a considerable number of farms this spring. There is run out hay land which can be plowed and which is receiving no care and hence growing more unproductive, while on the same farm field, is land which is being plowed the second or third time for a cultivated crop and at the same time liberally manured and fertilized.

The productivity of the farm would be increased if the land which has been manured and has grown one or two cultivated crops could be reseeded and some of the run out land taken up and manured. However

from force of habit, because the land plows easily or for other reasons the same land is plowed year after year, and the old mowings left to become more unproductive. It seems that this is a question which every farmer, should apply to his conditions. Is there any old run out hay land which needs taking up and which could be taken up if some of the cultivated land were seeded down?

Order of Quarantine No. 4

RELATIVE TO EUROPEAN CORN BORER

Whereas, a dangerously injurious insect, the European corn borer (Pyrausta nucilalis Hubner) has been found in the following cities and towns in Massachusetts, in addition to the cities and towns specified in orders of quarantine in effect May 1 to June 2, 1919, namely,

BRAINTREE, COHASSET, HULL, MILTON, QUINCY, RANDOLPH, WEYMOUTH, ROCKLAND and SCITUATE

And whereas, this insect is likely to spread to other portions of this state and other states, now therefore, I, R. Harold Allen, State Nursery Inspector, with the approval of the Commissioner of Agriculture, by authority of and under the provisions of Chapter 95 of the General Acts of 1919, and after a duly advertised public hearing held at 136 State House, Boston, on June 6, 1919, prohibit the movement from any points within the above mentioned cities and towns to any points outside of the same, of any corn fodder or corn stalks whether used for packing or otherwise, or any green sweet corn or roasting ears, corn on the cob or corn cobs. This order shall not extend to shipments of corn through the quarantined area on a through bill of lading.

This order shall take effect June 9, 1919, and remain in full force and

effect until further notice.

R. HAROLD ALLEN, State Nursery Inspector.

Approved:

WILFRID WHEELER, Commissioner of Agriculture.

June 6, 1919

The Garden

The earliest peas will have been picked and a crop of Beets, Celery, Cabbage or Cauliflower may be planted as a succession. A sowing of bush beans may be made as late as July 15. Select an early variety of corn such as Golden Bantam or Perb-O-Day and make the last planting not later than July 1st. Be sure to keep the cultivator busy, even if no weeds are in sight, this insures the necessary conservation of soil moisture.

Another very important thing, do not neglect the keeping of garden

Another very important thing, do not neglect the keeping of garden accounts, recording when the various plantings were made, when ready for table use, together with cost of land preparation, fertilizer, seeds and labor, crediting the products at the prevailing retail prices, some very in-

teresting as well as instructive data will be secured.

Insects and Diseases

These troubles are always with us in the garden and have to be reckoned with. Insects are usually divided into two classes, chewing and sucking, for the former a stomach poison is necessary, while for the latter a contact poison has to be provided.

Formula for chewing insects: One and one half ounces of Lead Arsenate paste to one gallon of water, or if powdered Lead Arsenate is

used, three quarters of one ounce is right.

For sucking insects such as Aphis, use Nicotine sulphate, such as Black leaf 40, 1 teaspoonful to 1 gallon of water, adding ¼ of 1 oz. of common soap, the soap assists in spreading the material and making it stick. A combination is generally made up, which saves time and labor of application. To the formula for chewing insects, the Nicotine sulphate is added omitting the soap, and if the spraying is properly done, both kinds of insects are taken care of.

Fungous Diseases

For the protection of plants from the ravages of funguous, the standard preventative is Bordeaux mixture,

4 lbs. of freshly burnt lime.

4 lbs. copper sulphate.

50 gallons of water.

Dissolve the lime and copper in separate wooden receptacles using an equal amount of water in each. After the materials are dissolved they should be poured through a strainer into the spray barrel and water

enough added to make 50 gallons.

For the small home garden it would be better to purchase a can of the concentrated Bordeaux mixture and use it according to the manufacturers directions. Do not wait until the plants are infested with insects and disease before applying the poisons, but use the materials as a preventative rather than as a cure after serious damage has been done.

Hardy Perennials

During the month, seeds of biennial and perennial plants should be Sometimes this work is deferred until later, but to get the best results, no time should be lost. Select a nice, mellow piece of land, spade it thoroughly and rake it down fine, preparatory to sowing the seeds. failures are traceable to the poorly prepared seed bed. After sowing. cover the seeds very lightly and keep the land moist Another good place to sow the seeds, is in an old hotbed or cold frame, and if the sash are used to cover the frame, make sure there is plenty of ventilation allowed, especially when the seedlings are coming up, or a very weak, spindling growth will result. As soon as large enough to handle the young plants should be transplanted. Some well-rotted manure incorporated into the soil is needed at this stage of growth—the aim being to get strong, vigorous plants to set out in their permanent position late in September, or during October.

Bee Keeping

In spite of all our precautions, bees will follow their natural impulse and swarm just at the time when it is least to be desired. This is when they are storing honey, and more particularly, when they are storing in sections. Plenty of room for queen and stores, good ventilation by large entrances, shade and an airy location all help to deter swarming, but in spite of these, some will swarm.

The bee keeper should have on hand in readiness, a complete hive

with full sheets of foundation wire in the frames.

If the queen is clipped, she will be found on the grass near the entrance of the hive. The old hive should be set to one side and the new put on the old stand. The queen should be picked up and caged, laying the cage on the entrance of the hive while transferring the supers from Shake the bees from half of the frames of the the old hive to the new. old hive into the brood chamber of the new, and while the swarmed bees are entering the hive, liberate the queen amongst them, making sure she In case the queen is not clipped and the swarm clusters where it can be reached, shake it into a box or basket and keep covered, and then pour them in front of the entrance of the hive, having an additional board laid at the same level. When the queen has entered, put on a queen trap to keep her in for a few days until they are settled at work and also to keep out the drones who cause disturbance. should be removed to its permanent location.

When it is seen that a colony is preparing to swarm, it is better to swarm artifically, known as shook swarming. Swarming is indicated by a large population, the starting of queen cells, and bees hanging in masses on the front of the hive about the entrance. A new hive, as before, is set in place of the one to be shaken, and a frame of sealed brood is set in the center of the hive. The queen is placed on this frame and a majority of the bees are shaken from the old combs, which will stock the new hive on

the old stand.

M. D. C.

Visit the Market Garden Field Station

If you are in the business or interested in growing market garden crops, a visit to the Market Garden Field Station in Lexington would be time well spent. Many interesting tests and demonstrations are being carried on there under the direction of Prof. H. F. Thompson of the Massachusetts Agricultural College.

The following days have been set as special visiting days during the

season, July 19th, September 20th and Oct. 18th.

Market Gardeners to Meet at Amherst

On August first and second, the Market Gardeners of the State are to meet at the Massachusetts Agricultural College. A program full of timely subjects has been arranged. Also an inspection of the experimental and demonstration plots will be conducted by the college.

Poultry Department

Poultrymen Visit E. B. Parmenter of Franklin

On Thursday, June 19th, poultrymen from Stoughton and Norwood

visited the poultry farm of Mr. E. B. Parmenter of Franklin.

Mr. Parmenter's plant is a strictly commercial one operated on an economical basis so that the work of caring for the fowls maybe done with the least amount of labor.

For several years Mr. Parmenter has been breeding to eliminate

broody hens and to build up a strain of high producing stock.

Those who made the visit were given a great deal of information by Mr. Parmenter as to his methods of breeding and keeping of records. Many good ideas were exchanged by the poultrymen and their troublesome questions were discussed by Mr. Wm. C. Monahan, Extension Specialist of the Mass. Agricultural College.

Culling Demonstrations Available

Last August, twelve poultry culling demonstrations were held in Norfolk County. Those who attended them expressed themselves as being well pleased.

The poultry department has just sent out a notice to the county agents saying that it will make its staff available to give demonstrations again

this year.

If you are interested in having one of these demonstrations in your community, please advise the County Agent as early as possible and he will confer with you and endeavor to arrange for it.

An attempt is going to be made this year to give a more thorough demonstration based upon the results of last year's work which was the first of its kind attempted in Massachusetts.

It will give those who attended last year a chance to bring questions concerning the difficulties met in culling and those who were not present an opportunity to see it done.

Rape For Hens and Chicks

Now is the time to put in a little rape for the hens and chickens. If you have a little space where the corn refused to germinate or where the mangels didn't come up, then you can run over the spot with the wheel harrow and scatter a few rape seeds. Then you will have some green feed for the hens and chickens.

Buckwheat also makes succulent poultry feed. It can be cut green and fed at once to the hens or it can be cut into very short lengths and fed to the chickens. This is another grain which can be planted in July.

Shade For Poultry

Don't forget that the hens and chickens need shade this hot weather. If you don't believe it take some brush and make a little "A" shaped open air coop and see the chicks hustle to get out of the hot sun.

Lice Are On the Job

Keep a close look out for lice. A few lice will worry a hen to such an extent that she won't lay eggs; and too many of them will kill the hen.

Are You Keeping Accounts

One man, \$1.46 on each hen he kept last year. Three years ago, when grain was cheaper, he didn't make so much. He says he made more money when grain was higher because he used better methods of management.

Do You Need Assistance With Your Poultry Problems

The poultry man at the school is at your service. He is more than glad to help you out. Just call Wapole 268.

We are just using the last of the mangels here at the School. Did yours keep as well?

B. R. G.

Home Making Department

Compare Your Food Budget With This Plan

SEE IF THE MONEY THAT YOU ARE SPENDING FOR FOOD IS GIVING YOU THE GREATEST RETURN

Every \$10 that you spend for food should include the following foods in the proportions indicated, according to the Dietetic Bureau in Boston. These suggestions are the result of careful investigations among many families. In hundreds of families where these suggestions have been followed, underweight children have been brought up to normal and frequently the mother has found that she has spent \$1 less a week for food for the family.

Try this plan for a few weeks in your family, it may be a means of

improving the general health as well as reducing your food bills.

For every \$10 spent for food there should be from: \$2.00 to \$3.00 spent for bread, cereals, rice, etc.

\$2.00 to \$3.00 for milk and cheese

\$1.70 to \$2.75 for vegetables and fruit \$1.70 to \$2.20 for meat, fish and eggs

\$1.20 to \$1.50 for other groceries, such as fat, sugar, cocoa, tea and coffee.

In families where there are small children:

The amount spent for meat should not be more than the amount spent for milk and cheese.

The amount spent for vegetables and fruit should be at least as much as the amount spent for meat.

The amount spent for bread and cereals should not be over one-third of the total food expenditure.

Have You Considered the Relative Economy of Different Foods?

WE FIND THAT THE MOST EXPENSIVE FOODS ARE NOT THE MOST NUTRITIOUS

Money spent for food is often times unwisely spent because the flavor rather than the nutriment supplied is considered. Since most of us have a limited amount of money to spend in feeding our families, we ought to make sure we are buying the foods that are the most nourishing.

Cereals

Oatmeal up to 16c per lb. at any reasonable price Corn Flakes at any price Barley " "10c Cornmeal " "9c " 10e " ,, ,, ,, ,, ,, ,, " " 8c ,, ,, ,, •• Hominy ,, Rice..... up to 15c per lb.

Pettijohn—at and reasonable price. Shreaded Wheat up to 15c per box. Cream Wheat Farina.

up to 25c for 13/4 lb. box. Puffed Wheat " ,, " ,, Puffed Rice •• Post Toasties "

Fruit

Prunes up to 16c per lb. """ 16c " Raisins " 17e ,, Dates Dried Apples " " 14c ,, Dried Peaches" "14c ,, ,, ,, Dried Apricots " " 14c Fresh Apples " " ,, ,, 2c

up to 23c per lb. ""23c "" " " $\bar{25c}$,, " " 20e "

Bananas up to 30c per dozen. Grapes up to 8c per An occasional orange (once a week for the baby) at 50c

Fruit in column 2 above prices named Plums over 1c each Pears over 1c each Peaches over 1c each

Vegetables

Dried Beans at any ordinary price Dried peas at any ordinary price, even 25c per lb. Spinach up to 10c per lb. Potatoes up to 5c per lb. Cabbage up to 5c per lb. Onions up to 4c per lb. Cauliflower up to 8c per lb. (provided outside leaves are used in some way) Beets up to 4c per lb. Carrots up to 41/2c per lb. Turnips up to 4c

" " 16c ,, 8c,, can 7c,, ,, 6c " " 13c ,, ,, ,, 6c ,, ,, ,, ,, 7c

,,

Any of the foods above price named in column 2 Canned peas above 15c per Canned corn above 17c per Any other canned vegetable purchased at the store Celery above 11c per bunch (3 roots) Asparagus above 10c per lb. Lettuce above 5c a head

up to 10c per lb. String beans Fresh Peas and beans up to 10c per lb. up to 3c per lb. Tomatoes @ 5c per lb.

6c

Are You Keeping Cool?

THE FIRELESS COOKER AND ICELESS REFRIGERATOR WILL HELP YOU DURING THE SUMMER SEASON

Home-made Fireless Cookers and Iceless Refrigerators have been demonstrated to over one hundred and fifty people in Norfolk County during the past two months and thirty people have signified their intention of building one or both of these appliances. They are inexpensive and easy They are also a means of solving the high cost of living, as

high priced ice and coal are not needed for their maintenance.

One woman in Franklin had a parlor party one afternoon a short time ago and invited the Home Demonstration Agent to show the women present how to construct a Fireless Cooker and Iceless Refrigerator. So much interest was shown by the women that the models were left for a few days so that the husbands might have a chance to see them and prepare themselves as manufacturers of home-made Fireless Cookers and Iceless Refrigerators.

Recipes That Your Norfolk County Neighbors Are Using

OTHER FAMILIES LIKE THEM, WHY NOT SURPRISE YOUR FAMILY WITH A NEW DISH?

We are told that there is nothing really original in this world so we are not claiming that the recipes that we are going to publish for the next few months are original ones, but simply favorites in the homes from which they have been contributed.

We have received several recipes, but we would like more. have not already sent in your contribution, will you not send it to us be-

fore the next issue of our Bulletin?

STRAWBERRY TAPIOCA

1 qt. Strawberries 3 T. Minute Tapioca

2 c. Hot Water

Whites 2 Eggs Juice 1 Lemon ½ to 3/4 c. Sugar

1/4 t. salt

Reserve eight or ten large strawberries for decoration.

Cook the tapioca in water and sugar until the tapioca is clear, then add the strawberries and lemon juice, bring to the boiling point, remove from the fire and add the beaten whites. When cold decorate with whipped cream and strawberries.

Mrs. O. H. Blaisdell.

RHUBARB PIE

2 c. Rhubarb cut in inch pieces

1 c. Sugar

2 T. Nut Margarine

½ t. Salt

2 T. Flour

1 t. Lemon Juice

Combine ingredients and bake between two crusts.

Mrs. F. B. Brooks.

RHUBARB TAPIOCA PUDDING

Soak 1/3 c. pearl tapioca in cold water to cover over night or several hours. Drain, put in double boiler, add 3/4 c. boiling water, 1/3 t. salt, and cook until tapioca has absorbed water. Cut rhubarb in three-fourths inch pieces crosswise, there should be 11/2 c. Sprinkle with 2/3 cup sugar, add to tapioca and cook until tapioca is transparent and rhubarb is soft. Turn into a fancy dish, and serve with sugar.

Mrs. O. H. Howe.

LEMON SPONGE PIE

1 c. Sugar

1/4 c. Oleo

2 Eggs

Juice and grated rind of 1 lemon
1 c. Milk
2 Eggs
1/8 t. Salt

2 Eggs ½ t. Salt 1 T. Flour wet with milk

Mix sugar, oleo and flour together. Add to this the yolks well beaten, add the milk and lemon and fold in stiffly beaten whites of eggs. Bake in one crust.

Mrs. M. H. Rines

CHOCOLATE SAUCE

Mix ½ c. sugar, 1 T. flour, 3 T. cocoa and a few grains of salt, add slowly 1 c. boiling water, stir and cook five minutes.

Mrs. O. H. Howe.

An Ounce of Prevention Is Worth a Pound of Cure

THIS TRITE ADAGE IS JUST AS APPLICABLE TO THE SUBJECT OF CLOTHING AS IT IS TO HEALTH

Fortunately it is not the extravagently dressed woman who constitutes the well dressed woman. It is the person who gives constant attention to the care and repair of her clothing that always appears to be well kept. We cannot deny the fact that it takes time to attend to these details, but there seems to be no question as to whether it is worth while or not.

The Clothing Facts Bureau considers the following suggestions essential in prolonging the life and service of clothing. Are we doing these various

things? If not, let us ask ourselves the question, Why?

CARE OF THE CLOTHES

Mend your clothes as soon as they tear.
Air your clothes before putting them away.
Hang your clothes up so they will not become wrinkled.
Sponge and press woolen dresses and skirts and coats.
Launder shirt waists at home if you can.
Keep all buttons and hooks and eyes carefully sewed on.
When skirt bands wear out, put on new ones.
Put new ruffles and facings on old petticoats.
Make your own corset covers at home.

Clean your own corsets; remove the bones, wash and dry the corsets, replace the bones, and bind the top with a piece of ribbon.

An old sheet or nightgown can be made into a bag to cover the best d css.

Darn your stockings.

Keep your shoes clean and nicely polished.

Keep your gloves clean and always mended.

Put your gloves away neatly when not in use. Wash your own collars, laces and handkerchiefs.

Keep your hats well brushed.

Keep your best hat in box or pillow slip when not being used.

On a stormy day wear a veil over your hat.

When your hat becomes shabby and dusty, take off the trimmings, b ush and steam it thoroughly and retrim the hat.

Keep your coat on a coat hanger. A coat keeps its shape longer kept on a hanger.

Junior Extension Department

County Team Expresses Appreciation For Washington Trip

Many splendid results come to the boys and girls from the club work. The recent opportunity given the County Canning Demonstration team to visit Washington and demonstrate before the public of our National City was probably the finest treat ever given any young people of this county. A detailed account of the four days trip, written in part by the girls themselves, is published in the "Norfolk County Club News."

The three girls and their leader, also the Farm Bureau Department of the Norfolk County Agricultural School and the United States Dept. of Agriculture, thru the National Club Leader, O. H. Benson, wish to extend their appreciation to those individuals and clubs who, by contributions,

made it possible for the trip to be taken.

Prof. Benson writes: "Will you kindly express our personal appreciation as well as the appreciation of the whole office staff to the donors of this free trip. Tell them we believe you have contributed a very great deal to the success of the work in the county and in Massachusetts and have given the Department and this office inspiration because of the splendid representation which your community has sent to us."

The following is the list of contributors:

Mrs. Eugene Endicott, Dedham.

Boston Woven Hose Co., Boston.

Readville Manor Club, Dedham

Woman's Club, Walpole

Wednesday Club, Walpole

Dr. Hallowell, Norwood

W. F. Howe, Amherst

Mrs. A. H. Fittz, Norwood

Home Economics Clubs:

Franklin
Weymouth
Needham
Medway
Bellingham
Dedham

Dates of Interest in Junior Extension Work

July 19-26 Prize winners camp at Mass. Agricultural College.
Seven prize winners from Norfolk County will be there.

Semi-annual meeting of Massachusetts Federation of County Club Leaders, at Amherst. Here the County policies for the Fall and Winter work will be talked over.

- July 25th Mid-summer conference of Junior Extension Leaders Association. This includes all state, county, town and local club leaders.

 Demonstration work will be the chief topic for discussion.
- July 29-30 Two day trip of County second prize winners via automobile to Amherst by way of Worcester & Springfield. Return via Greenfield.
- August 20th Junior Extension Field Day at Walpole. Exhibits, demonstration and contests. A live rally of all club members.
- August 29th Weymouth Fair. Exhibits, Demonstrations and contests.
- Sept. 1st Special emphasis on club work in all branches of the Junior Section.
- Sept. 1-5 New England Fair—Worcester—Town and County exhibits.

 Competition in demonstration and judging. State winners selected.
- Sept. 12-20 Eastern States Exposition—Springfield. Club members themselves will be the feature of the Junior section. State teams representing all club projects from the ten New England and North Atlantic States will spend the week at the exposition and demonstrate various phases of club work.

Club Work and the Community

A summary of the home economics club project will be found in the enclosed copy of the "Norfolk County Club News." The eighty per cent. finish is one we may well be proud of since it means much effort on the part of the members and leaders.

It seems well at this time to make an urgent plea for adult support. The exhibits brought out a few parents who expressed their appreciation for the results of the work done. Many more did not come, however, who by making a little extra effort could have done so. If the parents only realize the eagerness with which the children greet the interest of an older person in their work, they would see they have missed an opportunity to get acquainted with their boys and girls, where they neglect to show this interest. The presence of even a few mothers and fathers at exhibits gives a stimulus to the efforts of the young people that cannot be overemphasized. Paid workers can be secured, the work can be done, fine exhibits held, but without the genuine support of the men and women of the community, half the value is lost.

Organized clubwork calls for volunteer local leaders. What more practical way of showing your appreciation for what others are doing for your children, or the growing generation in your community, than by taking the leadership of a little group of boys and girls working on some project? You will find more enjoyment from these fortnightly meetings say of canning, bread or garden club members that you would dream.

Why don't you think this over and see what you can do to help this valuable work along? Give the boys and girls a fair chance.

Massachusetts Fruit Growers' Association Field Day Program

MASSACHUSETTS AGRICULTURAL COLLEGE, AMHERST, MASS. THURSDAY, JULY 31, 1919

9 A. M. Spraying: A demonstration and discussion of various spray apparatus including nozzles, spray guns and power sprayers; and of spray materials including many forms of sulphur.

10 A. M. Dusting: A demonstration and discussion of this method of

controlling orchard pests.

11 A. M. Thinning fruit: A demonstration and discussion of various methods of thinning, with costs and results. Thinning is the next step which our orchard men should take in the growing of better fruit. Many have already taken it. All ought to.

1.30 P. M. The farm and home manufacture of fruit products, including the uses of poor grades and thinnings. Demonstrations and exhibition. Samples of fruit products will be served.

3 P. M. Storage of fruit: Methods of storage house construction. Inspection of College Storage House. Models of efficient storage houses for home and commercial uses will be on exhibition.

4 P. M. Fruit graders and grading: The College has four types of graders. These will be operated and the general question of graders and grading discussed.

P. M. Inspection of Experimental Orchards.

Plan Now To Attend Farmers' Week

The Massachusetts Agricultural College has planned to devote July 28th to August 2nd inclusive, to a summer Farmers' Week which will give farmers the opportunity to attend demonstrations, lectures, and inspection of gricultural projects not feasible during the winter months.

The Massachusetts Fruit Growers' Association, the Dairymen's Association, the Holstein Breeders Association, the State Grange and the Market Gardeners' Association have so far signified their intention of having field

days during the week.

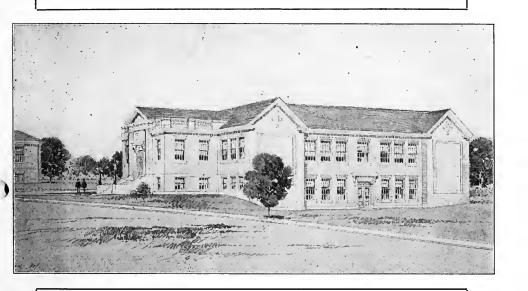
Each of these organizations will have its own program, and in addition, the college will have lectures, and demonstrations of experimental and instructional work, and each department will display and explain its activities.

A large attendance is being arranged for and groups of farmers are already signifying their intention of making a trip to Amherst for the whole or part of the week.

NORFOLK COUNTY AGRICULTURAL

AND HOME MAKING BULLETIN

VOL. 1 JULY, 1917 NO. 2



PUBLISHED BY THE NORFOLK COUNTY AGRICULTURAL SCHOOL, WALPOLE, MASS.

SCHOOL STAFF.

FREDERIC W. KINGMAN	. Director
LAURENCE A. BEVAN	. Market Gardening
CAREY W. CARRICK	. Poultry Husbandry
HORACE C. FUNK	
CHARLES W. KEMP	. Weymouth Dept.
MARY E. SHEPARD	.Sec'y and Accountant

FARM BUREAU DEPARTMENT.

WILLARD A. MUNSON	County Agricultural Agent
STELLA S. SIMONDS	Home Demonstration Agent
JOHN T. DIZER	Boys' and Girls' Club Leader

ANNOUNCEMENTS.

Home Making Courses of the Agricultural School.

The trustees voted at a recent meeting to introduce Home Making courses for young women the coming year, provided there is an enrollment of not less than twenty. Applicants for admission to this department should communicate with the Director at an early date. An outline of the courses follows:

I. English.

History.

General Science.

Household Arithmetic.

Cookery.

Elementary Cooking.

Elementary Study of Foods.

Elementary Household Sanitation.

Elementary Laundry.

Elementary Household Management.

Sewing.

Elementary Sewing.

Elementary Textiles.

Applied Art.

Elementary Household Decoration.

Elementary Costume Design.

Physical Education.

Elementary Physiology.

Physical Training.

II. English.

History and Civics.

Home Gardening.

Cookery.

Advanced Study of Foods.

Advanced Household Sanitation.

Advanced Laundry.

Advanced Household Management and Study of Elementary Budget.

Housewifery.

Cooking—Invalid Cooking.

Butter and Cheese Making.

Care and Feeding of Children.

Sewing.

Elementary Millinery.

Advanced Textiles.

Advanced Sewing.

Physical Education.

Physiology and Hygiene.

Home Nursing.

. Physical Training.

Household Chemistry.

The Home Making Department of the Norfolk County Farm Bureau, in cooperation with the Massachusetts Agricultural College at Amherst, is introducing a one-day extension school on Food Conservation into as many towns in the county as desire it. This school includes five talks and demonstrations on food conservation, and are held in the afternoon and evening. The following is a tentative program which is being given in several towns:

2:00—3:00. Talk on Food Values and Meal Planning.

3:00-4.30. Canning Demonstration.

4:30—5:30. Eliminating Wastes of Food.

7:30—8:30. The Drying and Evaporation of Fruits and Vegetables.

8:30-9:30. Dry Storage.

9:30—10:00. Consultation.

Any town interested in holding this school may make arrangements for it by conferring with Miss Stella S. Simonds, at the Agricultural School.

The Springfield Show and Convention.

Although the exhibits are some months away, we want to prepare for them. Begin now to select vegetables for the Springfield exhibition. It is to be a four-day convention, beginning October 10. The program includes a trip through the Connecticut valley, a visit to West Springfield market gardens, through the onion and tobacco sections, a mountain climbing trip, and a visit to the Agricultural College. This is the first national vegetable show to be held in this country.

Entry blanks or information may be obtained from the Eastern States Exposition Company, Springfield, Mass., or H. F. Thompson, 10 Temple St., Arlington, Mass.

Training Schools in Food Conservation.

"To meet the demand for supervisors and demonstrators with practical experience, two four-day schools are to be held at Massachusetts Agricultural College from July 10 to 13 inclusive, and July 17 to 20 inclusive. Attendance of each school is limited to 30, and they will be enrolled in order of application. Practical courses in home canning for club and community, food composition, meal planning, evaporating, food substitutes, and storage of crops will be offered. Standard equipment and materials will be used."

Poultry Convention at Massachusetts Agricultural College.

"The fifth annual convention of the Massachusetts Agricultural College and Massachusetts Poultry Society with the State Board of Agriculture co-operating is to be held this year at Amherst on July 25, 26, 27.

"Many problems have arisen with the high price of poultry supplies and the program this year has included the consideration of such important questions as poultry management, selective breeding and cost of production, production of poultry feeds in Massachusetts, value and use of poultry manure, the present and future poultry feed situation, and cost of egg production.

"There has been already an unusually strong demand for this meeting to discuss the problems which have arisen through our entrance into the war. Circulars with detailed program may be secured within a few days from Wm. D. Hurd, Director of Extension Service, M. A. C., Amherst, Mass."

M. A. C. Agricultural and Military Camp. Second Camp—July 30 to August 25.

During the month of August, the Massachusetts Agricultural College, believing that every boy physically fit should engage in some work useful to the Nation, will conduct a boys' camp for the purpose of giving agricultural and military training.

The agricultural instruction will be of a very practical nature, opportunity will be given for actual farm work, "to learn by doing," and every effort will be made to familiarize the boys with the simpler processes of farm work, in order that they may be better prepared for enlistment in farm service. The agricultural instruction will be given by regular members of the M. A. C. faculty.

The camps will be under military supervision and approximately one-half of the boys' time will be given to military training. The military instruction will be under the general direction of two retired officers of the United States Army, assisted by college men of military experience at Plattsburg and at the Massachusetts Agricultural College.

In addition to instruction along agricultural and military lines, there will be a well balanced program, devoting time to athletics and other forms of recreation.

The camp is located on the Massachusetts Agricultural College campus, adjacent to the college armory with its military equipment and near the athletic field and the college farm.

Admission is limited to one hundred boys. Boys between fifteen and eighteen years of age who have the consent of their parents and guardians will be admitted. Each recruit will be required to present a physician's certificate stating that he is physically fit to perform military and farm work.

A registration fee of thirty dollars, covering all expenses excepting laundry and the actual personal expenses incurred, is required for the four weeks. Registration fee will be refunded to those who find it impossible to attend the camp.

For further information relative to the camp, address W. D. Hurd, Director of Extension Service, M. A. C., Amherst, Mass.

HOME MAKING DEPARTMENT.

With the increase in the production of our foods this year, we are bound to have a surplus of perishable food. This food cannot all be consumed during the months of production; neither should we allow any of it to go to waste. Our surplus food material should be preserved in some way for use during the months when we cannot produce. The time when we should preserve the different fruits and vegetables is when the product is in its prime, for at that time it is cheapest and the quality of the best. We are at present enjoying the season of strawberries, and now is the time for us to put by some for the winter months. The following are three methods by which strawberries may be preserved.

Cold Pack Method of Preserving Strawberries.

Can fresh, sound berries the same day they are picked. Hull, place in a strainer, pour water over them to cleanse. Pack them in a clean jar without crushing; pat the jar on the hand to settle the berries and to get a solid pack. Make a syrup, using three parts of sugar and two parts of water. Bring the syrup to the boiling point, then pour over the berries to the top of the jar. Wash the rubber ring, put the rubber and cap in position, but do not tighten. Place the jar

on a rack in a kettle of water, having the water cover the jar by one inch. Bring it to the boiling point, and boil it for twelve minutes. Remove the jar, tighten the cover, and invert the jar to cool. If the jar leaks after sealing, it usually indicates a defective rubber. In this case, remove the cover and rubber, place a new rubber on the jar, return the cover and partially seal the jar. Place the jar in the sterilizer and boil five minutes. Remove and seal and invert to cool.

Berries canned by this method have a good flavor and are distinct in shape. They have bleached, however, during the cooking, and the berries tend to separate and rise to the top of the syrup. All soft fruits, blue berries, blackberries, raspberries, sweet cherries, plums, and grapes may be canned according to the above directions.

Strawberries canned by the following method will not rise to the top of the syrup, and have a better color, but owing to the large amount of sugar they are more like a preserve.

Use only fresh, ripe, firm and sound berries. Prepare the berries, add 8 ounces of sugar and 2 tablespoons of water to each quart of berries. Boil slowly for 15 minutes in an enameled or acid-proof kettle. Allow the berries to cool and remain over night in the covered kettle. Pack the cold berries in sterilized glass jars, add syrup to fill the jar, put the rubber and cap in position, partially seal, and sterilize for five minutes in a hot water bath outfit.

Sun Preserved Strawberries.

Select ripe, firm berries. Pick and preserve them the same day. Hull and rinse to cleanse them. Place them in a shallow platter in a singler layer. Sprinkle sugar over them. Pour over them a heavy syrup made according to the directions in the above receipt. Cover them with a glass dish or a plain window glass. Allow them to stand in the hot sun eight or twelve hours. Pack them in glass jars or cups. Tie paper over the tops or cover with paraffin or sealing wax. Keep in a cool, dry place.

Directions for Canned Peas.

Many people have experienced difficulties in canning peas, and becoming discouraged with failures have ceased trying to can them. Peas require longer sterilization than many other vegetables, not because it takes longer cooking to soften the texture, but because the kind of germ life that inhabits peas is hard to kill and a longer period of boiling is required to bring about thorough sterilization, for unless this is accomplished, the canned product will spoil. Peas are also subject to a trouble which is known as *Flat Sour*. Canned peas may show no sign of spoiling, but when opened have a sour taste and a disagreeable odor. This trouble can be avoided if the canner will use a fresh product, that is one that has not been gathered more than five or six hours, and if during the canning process the product is not allowed to stand at any time at a luke warm temperature. Blanch, cold dip, and pack one jar of material at a time, and place each jar in the canner as it is packed. The first jar will not be affected by the extra cooking.

Receipt for Canned Peas.

Shell peas, blanch by boiling from two to five minutes, the time depending upon the quality of the pea. Plunge in cold water after blanching, and pack immediately in a clean jar. Add one-half teaspoon of salt to each pint jar for flavor, if desired, and many people like to add one-half teaspoon of sugar. Fill the jar with boiling water. Wash the rubber, put the rubber and cover in position, and

partially seal. Follow the directions for sterilizing as given in the receipt for canning strawberries by the cold pack method, but extend the time of cooking in the case of the peas to three hours. After cooking, remove from the sterilizer and cool quickly, and avoid a draft. Rapid cooling prevents overcooking, clarifies the liquid, preserves the shape and texture, and is a precaution in preventing flat sour.

TIME TABLE FOR COLD PACK METHOD OF CANNING.

Product	Scald or blanch Minutes	Hot Water Bath Minutes	Stea 5 lb. Minutes	m Pressure 15 lbs. Minutes	20 lbs. Minutes
VEGETABLES					
Asparagus	5–10 boiling water, 15–20 steam	180	60	40	35
Beans (Lima, String)	5–10	180	60	50	40
Beets	Sufficient to loosen skin	90	60	45	35
Carrots	5	90	60	45	35
Cauliflower	3	45	30	20	
Corn	5-15	180	60	45	35
Greens	5–10 boiling water, 15–20 steam	90	60	40	35
Peas	2-5	180	60	50 *	40
Pumpkin	Remove skin and cook 30 minutes to re- duce bulk	60	40	35	30
Tomatoes FRUITS:	1–2	22	15	10	
Apples	1-2	20	8	6	
Blackberries		16	8	5	
Blueberries		16	8	5	
Cranberries	1	16	10	5 ,	
Cherries (Sweet)		16	8	5	
Cherries (Sour)	1	16	10	5	
Currants	1	16	10	5	
Gooseberries	1	16	10	5	
Grapes		20	15	8	
Peaches	1-2	16	8	5	
Pears	1-2	20	8	6	
Rhubarb	1–3	20	15	10	
Pineapple	3	20	10	8	
Plums		16	12	8	
Quinces	1–2	20	8	6	
Strawberries		12	6	4	
Raspberries		16	8	5	

Many failures in canning may be attributed to the use of poor rubbers. The use of the best quality rubber rings is most essential for successful results. Purchase the best rubbers. Good rubbers will stand considerable stretching and will then regain their original form. Do not use the rubber rings that come on the jars. As a rule they do not insure a tight seal. Never use a rubber a second time.

GARDENING.

Insect Pests.

Insect injury is serious anyway, but if something is known of their method of eating they are easier to control. There are two classes of insects; those that have mouth parts for biting, and those that have mouth parts for sucking. Beetles and cutworms represent the former class, while plant lice and the squash bug represent the latter class. The biting insects eat pieces of plants and swallow them, so that they may be controlled by spraying a stomach poison on the foliage. The cheapest and most efficient stomach poison is arsenate of lead.

For insects that have sucking mouth parts, spraying with a stomach poison would obviously do no good. It is necessary to kill this type of insect by spraying with a contact poison. One of the best contact poisons is a commercial solution known as Black Leaf 40.

The following is a reduction table prepared by the Massachusetts Agricultural College, Extension Service, for mixing small quantities of spray materials:

Material Used	Large Quantity Formula	Equivalent Small Quantity Formula (approximate)
"Black-leaf 40"	dilution 1—1,000	1 teaspoon to 1 gallon water
"Black-leaf 40"	dilution 1—800	1 $\frac{1}{4}$ teaspoonfuls to 1 gallon water
Arsenate Lead Paste	3 lbs.—50 gallons water	3 teaspoonfuls to 1 gallon water
Arsenate Lead Powder	1 ½ lbs.∸50 gallons water	$9\frac{1}{2}$ teaspoonfuls to 1 gallon water
Lime-Sulphur	1 gallon—50 gallons 1½ gallon—50 gallons water	$20\frac{1}{2}$ teaspoons to 1 gallon $25\frac{1}{2}$ teaspoons to 1 gallon water (one-half formula)
Kerosene Emulsion		¹ / ₄ lb. soap, ¹ / ₂ gallon water, 1 gallon kerosene
Bran Mash		3 lbs. bran or middlings, 2 oz. Paris Green, 1 cup cheap molasses, ½ orange or lemon, 1½ pint water
Pyrox	1 lb.—5 gallons	$10\frac{1}{3}$ teaspoonfuls to 1 gallon water
Paris Green (Potato Spray)	½ lb. Paris Green, 1 lb. quick lime to 50 gal- lons water	² / ₃ teaspoonful to 1 gallon water
Bordeaux	4—4—50 formula	$1\frac{1}{3}$ oz. fresh lime, $1\frac{1}{3}$ oz. copper sulphate, to 1 gallon water

Garden Notes.

Anthracnose is a most serious enemy of beans, and its presence is especially marked on wax varieties. Badly infected pods never command full market price. The disease is transmitted from affected seed. Therefore, the planting of clean seed in clean soil means no disease on a new crop. If you have such a plot, perhaps it would pay you to save enough seed for your planting next year.

Remember weeds cost money.

Don't forget to plant turnips in the bare spots or as a succession crop.

Late Cabbage.

Ever since last fall cabbage has been selling at almost unheard of prices. Whether cabbages bring five dollars or one hundred dollars a ton, the best possible yields interest everyone, whether they are growing a garden patch or twenty-five acres.

One of the first things to consider is the proper variety, but besides that different strains of the same variety show a marked difference in the quality and yield. In a two year test of early spring cabbage, one strain made a total yield of fifteen tons per acre, while another grown under similar conditions yielded six tons per acre. In late cabbage, one strain of Premium Flat Dutch produced twenty-four and a half tons to the acre, while another line of seed produced sixteen and a quarter tons per acre. This shows that it pays the market gardener to get the right variety and the right strain.

Many growers prefer sod land for cabbage. One grower said that all he needed was manure, more manure, and still manure to produce cabbage. In field setting, transfer as much dirt along with the plants as possible, so as not to check the growth of the plant. Late varieties, like Flat Dutch, plant two feet by three feet. It will pay well to put a top dressing of two to four hundred pounds per acre of a two per cent. nitrogen and ten per cent. phosphoric acid fertilizer close to the rows of the plants. Most profitable yields will result from good disease resisting strains, thorough preparation of the soil, and plenty of available plant food.

Green Food for Poultry.

With the present prices of feed, we should seize every opportunity to reduce the cost of feeding poultry. One of the best ways to do this is by giving an abundance of green food.

Dwarf Essex Rape is an excellent crop for poultry. It may be planted in drills or sown broadcast, and may be either pastured or used as a soiling crop. If it is not cut below the crown, rape may be gathered several times during the summer. It may be sown until the 1st of August. Rape should not be fed to laying hens where the eggs are to be marketed, since much of it gives the egg yolks a dark color resembling that of heated eggs. The young stock may be fed abundantly.

In order to get a good egg production in winter, it is necessary that some succulence or green food be given. For winter use, cabbage may be grown. The soft heads which are inferior for market purposes should be fed to poultry. If you have a neighbor who has many inferior cabbage heads, it will pay you to get them from him. Cabbage may be planted until the middle of July. It is best fed by suspending a head eighteen inches above the flow, forcing the birds to exercise as they pick it.

Lawn clippings and waste from the garden may be fed to poultry with good results. No green food should go to waste under present conditions.

CARE OF MILK IN THE HOME.

With the coming of the hot weather, the care of the milk in the home becomes extremely important. No matter how much care is taken in producing milk, there will always be a large number of bacteria present in it. Through the action of these milk sours. If milk is kept properly, this action is comparatively slow, but if the conditions for the growth and reproduction of these bacteria are favorable, such as warm temperature, milk will sour very quickly.

Don't always blame the milk man if the milk sours. Perhaps it is due to the way in which the milk is handled after it is delivered to the home.

The following are some rules for the care of the milk in the home, given out by the Massachusetts State Board of Agriculture:

- 1. Take in milk and cream as soon as possible after being left at your door and place in the refrigerator.
 - 2. Keep milk and cream cold until ready for use.
- 3. If ice cannot be had, wrap the bottle in a wet cloth and stand it in a dish of water by an open window, out of the sun. Evaporation of the water will cool the milk.
- 4. Keep milk and cream covered until wanted and in the bottle in which it is delivered. In open bowls or pitchers, it will absorb odors from food and collect flies and dust.
 - 5. Pour from the bottle only what milk or cream is needed for immediate use.
- 6. Milk or cream that has become warm should never be poured back into the bottle of cold milk or cream.
- 7. Utensils used for milk should first be rinsed with cold water, then washed with warm water and washing powder, and finally rinsed with boiling water, thoroughly drained and allowed to become cold before being filled with milk.
- 8. Have a separate quart of milk for the baby. What he (or she) does not use others may have.
 - 9. Wash and return all milk and cream bottles daily.
- 10. No person ailing or sick with contagious disease, or one having the care of such person, should have anything to do with the care of milk or of milk utensils.

COST OF MILK PRODUCTION.

It is rather difficult to determine just how much it costs to produce a quart of milk on account of the different conditions under which it is produced. In a recent publication of the Massachusetts Agricultural College, J. B. Lindsey gives some of the items that make up the cost of milk production. They are:

- 1. Interest, depreciation, and taxes on the cost of the cow and barn.
- 2. Cost of feed, including taxes and insurance.
- 3. Cost of labor, including milking, care of the cow, milk and utensils.
- 4. Cost of hauling feed and milk.
- 5. Cost of and depreciation on tools.
- 6. Bedding.
- 7. Cost of keeping bull, or service fees.
- 8. Miscellaneous costs, such as veterinary fees, medicines.

Considering all these costs, the publication states that from nine to twelve cents a quart for milk at retail, depending upon local conditions, is not at all excessive under the present conditions. Furthermore, the producer must receive a just share of this price; otherwise it will not pay him to produce milk, and in conse-

quence he will sell his cows, curtailing the milk supply. As a matter of fact, this is what is happening to some extent at the present time.

BOYS' AND GIRLS' WORK IN NORFOLK COUNTY.

Sixty thousand pounds of pork for Thanksgiving is the objective of the Norfolk County Pig Club at the present time. Nearly three hundred boys and girls in the various towns are acting as guardians to one or more pigs, in most cases with very satisfactory results to both the children and pigs.

Weymouth, with a club enrollment of 203, not only leads the county, but has the greatest number of members of any town in the state. Walpole, with 92, is second in both county and state. Canton, Cohasset, Stoughton, and Bellingham also have good representations. In several towns the scarcity and high prices of small pigs discouraged many ambitious would-be pig owners. Many of these boys and girls, however, are spending their spare time scratching the backs of their more fortunate friends' pigs and giving advice to the owners, which speaks well for the interest in the work for the future.

Lack of sufficient land, changes of residence, and similar reasons caused a slight shrinkage in the market garden enrollment, but there are now seventy-five boys and girls taking complete charge of at least a twentieth of an acre planted to market garden crops. One good feature in most of the gardens is that all land is kept busy. In many cases, a careful succession of crops was worked out early in the spring, and in spite of wet weather and witch grass some boys will get three different crops from their pieces of land.

Potato growing among the boys has received a great deal of attention, and in the Potato Club boys are taking care of about twelve acres planted mostly to late varieties for winter storage.

Field corn to the extent of ten acres is the county's representation in the Corn Club. With the prices of grain where they are, most of the club members are looking for a good cash balance as well as doing their part in food production.

The latest club to receive special emphasis is the Canning and Marketing Club. Already one hundred and fifty girls and boys have signified their intention of preserving fruits and vegetables in glass this summer as a part of the conservation movement. As enrollment in this club does not close until August 1, there is a good chance of its being the largest club in the county. All girls and boys who join are given instruction and supervision, and have a chance to compete for the state prizes, which adds incentive to the work.

Many boys and girls in every town have gardens which are not large enough, or which have not been entered in the state club contests. An estimate of these gardens, taken for the U. S. Government, sets the number in Norfolk County at approximately 7500. A large part of these are under supervision and are being well taken care of. While no direct comparison has been made with the work of previous years, it is certain that the interest of both children and parents, as well as the quality of the work is better than ever before. The work of local supervisors, both paid and volunteer, is doing much to standardize work and keep the interest right to the end of the season.

CULTIVATE YOUNG ORCHARDS.

A number of fruit orchards have been set out in Norfolk County during the past five years. These plantings are showing the care which they have received in the amount of growth the trees have attained each year. Several methods of growing

fruit trees are in practice, and owners have adopted the one which has appealed to them as being the best to meet their special condition and to grow the orchard well with the least expense. With the exception of a very few cases, the practice of thorough cultivation in growing fruit trees has been adopted, because it produces a large healthy tree at the age when it comes into bearing. A tree eight to ten years old should have fruit producing surface enough to give a profitable crop of fruit, and in order that it may be as large as possible a continuous thrifty growth is necessary.

Large numbers of young trees are making poor growth from lack of cultivation. In some instances, there are blocks of trees that have had the same treatment, except that one block has been cultivated and one has not. In each case, the cultivated block has made by far the better growth.

The orchard on the farm of Mr. C. A. Wilson, of West Medway, is one of the Massachusetts Agricultural College Demonstration Orchards. It was planted in 1911. The following quotation is from Mr. Wilson's report for last season.

"As I have a good-sized dairy, I have always planted sweet corn for fodder for the cows, and began the first year with the orchard in the same way. The trees made such a good growth and were so healthy looking, that I continued until the third year, when about one-third was seeded with herd's grass and red top as an experiment. The result was that the portion that was seeded stood practically still until last fall when it was plowed and harrowed thoroughly, and with corn on it this last year it has made a wonderful growth. My experience is, if you plow and harrow well with enough manure to give you a fair crop of corn, the trees will take the prizes, as mine have for the last two years."

This is the experience of a practical farmer who is growing an orchard for profit. Others have had the same experience.

Young orchards which have been left in sod for more than one year have usually responded with a poor growth.

SAVE ALL YOUR CROPS.

The conservation of the surplus garden crops which have been planted this year is demanding the attention of all those who are anxious that everything be saved. The work that has been done and is yet to be done in raising a great amount of produce will be of little value if it is not followed by exerting every effort to the extent of not letting one single thing go to waste. If your garden is producing more than you can use, see that it is canned or dried, and if there is more than enough for your own needs, let some neighbor know of it and sell to him or her at a reasonable price those products which will otherwise be lost.

The perishable things which are allowed to pass the time when they are in proper condition to eat, will be lost and wasted. They should be harvested when in prime condition in order to be of most value for immediate consumption or for canning and drying. A vegetable that has passed the time when it is best for table purposes has also passed the stage when it is most suitable for canning or drying. Canned products, if properly done, open up the same as they are put in Dried products, when prepared for use, come back to the condition they were in before being dried.

Conserve everything possible. It will be needed.

GROW LEGUMES FOR COW FEED.

The farmer of today who is receiving a good return for his work is the one who grows the crops that will give the most value for the labor and expense involved.

It is comparatively easy to grow certain crops, but the return they bring is proportionally small. If dairying is the chief farm operation, then it is necessary to grow those crops that will feed stock most economically and reduce the amounts

of purchased grain concentrates.

Profitable dairying is to a large extent the result of proper feeding. Feeds must be figured on a system that will give a certain amount of protein in the cheapest form which will be relished by the cow. Most of the legumes, such as clover, alfalfa, vetches, and soy beans, are preferred by cows to other forms of roughage. These carry large amounts of protein, and are the cheapest forms in which it can be fed, especially if these feeds are produced on the farm. This is one of the reasons why the thinking dairyman grows legumes. He finds it cuts the cost of his grain bill to a very appreciable degree.

It is not uncommon to hear complaints about the difficulty in growing legumes, but such failures are usually due to the fact that some detail necessary to producing clover or other legumes has been overlooked entirely, or slighted to a large degree. The fact that in nearly every section some farmer is growing legumes with the utmost success, is proof that it is not impossible to get these valuable crops to grow on our farms. It is not a difficult problem to grow legumes, if one is willing

to investigate and learn the requirements of clover, alfalfa, etc.

The first thing to provide is a sweet soil. A sour soil will not allow nitrogengathering bacteria to exist. These organisms guarantee a vigorous growth of legumes. They take nitrogen from the air, store it in the plant and in the soil, making it available for animals and for the crops that follow. The farmer who makes his soil a home for these nitrogen-gathering bacteria has a silent partner doing an incomprehensible service. Every tiller of the soil should encourage them by sweetening the soil and giving them a start by inoculation. Lime, in the form of ground limestone or air slacked lime, applied two tons to the acre after plowing and harrowed in, will sweeten most soils.

Attention to the kind of legume to be seeded on various soils should not be forgotten. A soil that is liable to carry excessive water will not give good results to all clovers or alfalfa, but would be more likely to grow alsike clover.

Know what the legumes require, do those things necessary to meet their requirements, and success is sure to follow.

EXCHANGE LISTS FOR FARMERS.

Beginning with the next issue of this bulletin, an exchange column will be installed. Any farmer having stock for sale or wishing to purchase stock may use this column without charge.

NORFOLK COUNTY AGRICULTURAL

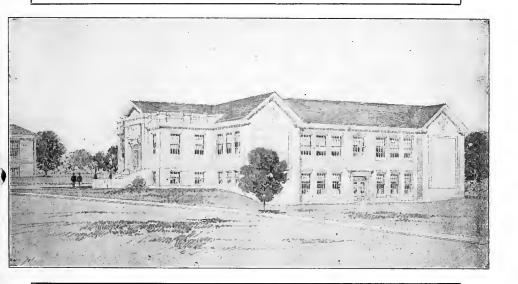
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SCHOOL STAFF.

FREDERIC W. KINGMAN	. Director
LAURENCE A. BEVAN	. Market Gardening
CAREY W. CARRICK	Poultry Husbandry
HORACE C. FUNK	Animal Husbandry
CHARLES W. KEMP	. Weymouth Dept.
MARY E. SHEPARD	.Sec'y and Accountant

FARM BUREAU DEPARTMENT.

WILLARD A. MUNSON	icultural Agent
STELLA S. SIMONDS	onstration Agent
JOHN T. DIZER	Firls' Club Leader



HOME MAKING DEPARTMENT.

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Sheep.
Fertilizers.

Alfalfa Plots Doing Finely.

Clover. Save Vegetable Seeds.

Massachusetts Most Completely Organized State in the Union. Massachusetts Agricultural College to Supply a Long Felt Want.

Time to Stop Orchard Cultivation.

Marketing.

Taking Care of Surplus Vegetables.

HOME MAKING DEPARTMENT

The Home Making Department of the Norfolk County Farm Bureau was established at a time when the need for services of this nature was strongly felt throughout the county. Opening as it did during the season of production, the immediate demand was for instruction in the better methods of food preservation so that the surplus of perishable foods might be held over for use during the winter months.

The average housewife has canned fruits more or less all her life, but the canning of vegetables is a new innovation in many homes. With the increasing agitation for food conservation, people are very generally realizing the necessity of making the individual family as self-supporting as possible.

The Home Making Department of the Farm Bureau has been besieged with requests for canning demonstrations from all parts of the county. These requests have been met as quickly as possible. The Home Demonstration Agent has demonstrated the cold pack method of canning fruits and vegetables in twenty-three out of the twenty-eight towns in the county, and has made arrangements for demonstrations in three of the remaining five towns. In many of the towns special training in the cold pack method of canning has been given to groups of women who will act during the summer as information centres, helping the women

in their locality with any difficulties that they may encounter in their canning work.

Girls' canning clubs have been organized in many of the towns, and a great deal of interest has already been shown by the girls in the canning clubs.

Realizing that canning is not the only method of food preservation, it has been suggested in many towns that a series of three talks and demonstrations be given in the town during the season. Many towns have adopted this suggestion and the following program has been arranged: one or more canning demonstrations during the month of July, a demonstration on the evaporation and drying of fruits and vegetables in the month of August, and during the month of September an illustrated talk on the better methods of dry storage of root crops for winter.

In co-operation with the Massachusetts Agricultural College, the Home Making Department of the Farm Bureau has held in eight towns in the county a one-day school on food conservation. The program for this school consisted of five talks and demonstrations, including the canning of fruits and vegetables, the drying and evaporation of fruits and vegetables, meal planning in the time of high prices, ways of eliminating waste of food, and the dry storage of root crops. These schools were held in the morning and afternoon or afternoon and evening as the local committee desired. We feel quite encouraged over the success of the school, having had an average attendance at all sessions of one hundred and twenty-five people, and having had a general expression of appreciation from the people who attended the schools.

The opportunity of having the food conservation school is open to any town in the county and arrangements for it can be made by conferring with Miss Stella S. Simonds, Home Demonstration Agent, Walpole, Mass.

Drying and Evaporation of Fruits and Vegetables

Food preservation to the majority of people means canning, but the present food situation will make it necessary for us to know it in its broader sense. We must save our foods not only by canning them, but by drying and by storing those that can be kept in this way. There are times when canning is not feasible, when cans and jars are too expensive and hard to get, and when the storage place is too small to permit the storing of many jars.

The drying of vegetables may seem strange to the present generation, but it was no novelty to our grandmothers. It is the least expensive method of saving the surplus of many of our crops, and the storage of such products is a relatively simple matter as compared with the storage of canned or fresh products. Drying also affords a way of conserving portions of food which are too small for canning. In order to dry material, we must have heat and a circulation of air.

There are three main ways by which drying may be done in the home, by the use of the sun's heat, by the use of artificial heat, and by the use of air blasts.

Drying is a cheap method of food preservation, but time must be allowed to do it. More time is required to dry large pieces of material than small pieces, and the color and quality of the product is better when it is quickly dried. In general, most fruits and vegetables to be dried quickly must be in slices about one-eighth of an inch thick or shredded. When freshly cut fruits or vegetables are to be dried by artificial heat, they should be exposed first to gentle heat and later to higher temperature. If the air applied at the outset is too hot, the cut surface of the fruit of vegetables becomes hard, preventing the juicy interior from drying

out. It is not desirable to have the air temperature in drying go above 150 degrees F., and better to keep it well below this point.

Drying of certain products can be completed in some driers within two or three hours. The time required for drying vegetables varies, and can best be determined by a little experience.

Cleanliness is very essential in the preparation of fruits and vegetables for drying. To secure a fine quality of dried product much depends upon having young tender vegetables and absolutely fresh and clean. One slice from a decayed root may flavor a whole batch of dried material if scattered through it. If steel knives are used in paring and cutting have them clean and bright so as not to discolor the vegetable.

Raw vegetables may be cut in slices one-eighth to a fourth of an inch thick and dried, or the vegetables may be blanched before drying. Blanching consists of plunging the vegetables into boiling water for a short time as is done in the cold pack method of canning. After blanching the required number of minutes, drain well and remove surface moisture by placing between two towels or by exposing to the sun and air for a short time. Blanching tends to give the material a more thorough cleansing, removes the strong odor and flavor from certain kinds of vegetables, and softens and loosens the fibre. This allows the moisture in the vegetable to evaporate more quickly and uniformly.

The drying of fruits and vegetables in the sun is a simple process, and the least expensive, and there is little danger of the product becoming overheated. The materials are spread on a clean paper or cheesecloth on a flat roof or on a platform set up in a sheltered place and sloping a little to the south. A tin roof is an ideal place for drying as the metal gathers the heat and serves as a radiator. Bright, hot, sunny days are chosen for this work, and the product must not be allowed to become damp. Much time can be saved and higher quality will result if products that are to be dried in the sun are first subjected to a relatively high temperature. The prepared products are placed in the oven or on improvised wire racks on the range and allowed to become thoroughly heated. This heating is called scalding. Once or twice a day slices are stirred or turned over with the hand and the thin ones if dried taken out. A piece of cheesecloth may be spread over the material to keep dust, flies, and other insects from the product while it is drying. Care must be taken to prevent insects from laying eggs on fruit while drying, for these eggs will hatch out later and make the dried food unfit for use.

Cheap but convenient trays may be made on which the material may be spread for drying in the sun. Such a tray may be made of lumber three-quarters of an inch thick and two inches wide nailed together to form the sides and ends of the tray. A piece of heavy galvanized wire screening one-eighth or one-quarter inch mesh, may be nailed on to form the bottom of the tray. A curtain frame or stretcher, such as lace curtains are dried on, makes a very satisfactory drying tray, if a piece of cheesecloth or wire netting is tacked on to form the bottom. Any product dried in the sunshine ought to be put in the oven and left at the temperature of one hundred forty degrees F. for a few minutes before storing, to kill any eggs of insects that may have been formed.

A rack made according to directions just described may be filled with material and suspended above the kitchen stove. This gives no trouble and is a cheap way of drying if the kitchen range is being used for other purposes.

A very simple rack for drying may be made from a piece of heavy galvanized wire netting. Take a small piece of a size convenient to handle on a kitchen range, bend the netting down at right angles six inches from either end. This furnishes legs on which the rack may stand, and supports the drying surface four to six inches above the range. Fruits or vegetables may be spread on this rack, the rack placed on the back of the range and allowed to stand until the material is thoroughly dry.

The oven of a kitchen range or gas range may be used as an evaporator, but it is not entirely satisfactory as it does not allow good circulation of air. Cover the shelves with cheesecloth or cut wire to fit the oven for trays. Leave the oven door open slightly for circulation while drying. It will be necessary to watch the material and the amount of heat. Do not have enough heat to allow apple to cook into sauce or to scorch the edges of the material during the last stages of the drying process.

A very satisfactory dryer can be made from an old portable oven with a few holes punched in the top, allowing a circulation of air.

An inverted pan on the back of the stove makes a good dryer for small quantities of material.

If one is fortunate enough to own an electric fan, it can be used in facilitating the drying process. Several trays of material may be stacked in tiers in front of the fan and warm dry air forced over them. This will shorten the time for drying the material, and in most places the cost of running the fan is not more than four cents an hour.

The methods of drying previously described are by means of dry heat. There are different types of steam evaporators on the market that are very satisfactory. This type of evaporator consists of a water tight metal box seventeen by twenty-four inches and the thickness of two to four inches, the top and bottom being flat. A hole in the top allows pouring in water and the escape of steam. The lower compartment is partially filled with water, set over the gas or oil flame or on the top of the range and prepared products spread on its flat upper surface. The steam heats the evaporating surface and the products are evaporated very rapidly with no danger of burning. This is a patented device and can be bought for three dollars.

A roaster may be used for a steam evaporator on a small scale. Water is placed in the bottom, the top inverted, and the products to be dried are placed in the top compartment. This is satisfactory for drying in small quantities.

The length of time required for drying depends upon the material and method used and the weather. Material may be tested to find out if it is thoroughly dried by squeezing it together in the hand and then letting it fall. If it clings together it needs further drying. Another test which is quite satisfactory is made by packing the dried material and a dry cracker in a jar and closing it tightly. In the morning if the cracker is still dry, the material is dry enough to store, but if the cracker is damp the material must have further drying.

It will be found advisable also to "condition" all dried fruits and vegetables before storing. This is best done by placing the material in boxes and pouring it from one box to another once a day for three or four days so as to mix it thoroughly and give to the whole mass an even degree of moisture.

Tin cans, stone crocks, glass jars, pasteboard boxes with tight covers, stout paper bags, and paraffin paper cartons make good receptacles for the storage of

dried fruits and vegetables. The material must be protected from the outside moisture and will keep best in a cool dry well ventilated place. It is better to store the material in small quantities so that the entire contents of the container can be used soon after opening.

It must be remembered that the water which has been dried out of the fruits and vegetables must be restored to them before cooking, and that this process requires time. It is better to thoroughly soak the material before using it rather than to try and cook the water into it.

Directions For Drying Special Fruits and Vegetables

Apples and pears are pealed, cored, cut into thin slices, and dropped into slightly salted water. If the quarters are cut lengthwise into at least four slices they will dry in much less time. These slices may be placed on the steam evaporator or on the drying platform, or scalded and spread in the sun. Peaches are either pealed or dried with the skins on. If the skins are left on they should be washed and rubbed to remove the fuzzy. Cut the fruit in halves, remove the pit, place on the evaporator, or lay on trays or in pans cut side up, and scald thoroughly, and then place on the drying platform. Raspberries and blackberries are cleaned without washing if possible, then placed on evaporator or scalded and placed on a drying platform.

Corn is freed from husks and silk, then cooked by boiling in water or in a steamer, the same as if preparing for the table. When tender remove from the cooker and plunge into cold water. As soon as cool enough to handle, cut from the cob in thin slices, using a sharp knife. This is preferable to scoring the rows and scraping out the pulp of the kernels, because the product is in small particles while if scraped it will be in gummy lumps. The prepared corn is evaporated or dried. Scalding will hasten the drying process.

String beans are broken or cut into short lengths and cooked in water to which a small amount of salt has been added. When tender, drain off water, then evaporate or dry. Green peas may be treated in the same way except that the peas are shelled. Pumpkin and squash have the rind removed, are cut into thin slices, and then evaporated or dried. Tomatoes are dipped into boiling water, the skins removed, cut into slices a fourth of an inch thick and dried or evaporated.

The Value of Greens in Our Diet

Vegetable greens are a very valuable adjunct to our diet, as they are an important source of mineral salts for our bodies. Our diet during the winter months is often lacking in green vegetables, and as a result our health during these months is not as good as during the summer months when we have many green vegetables from our gardens. Let us supply the body demands for mineral matter by canning our green vegetables for use during the winter months, thus making it unnecessary to supply mineral matter in the form of medicine. For a well regulated diet it has been recommended that each family be supplied with one jar of greens, vegetables, and fruit for every day in the year. Following is a list of edible wild and cultivated greens:

Edible Cultivated Greens

Swiss Chard Kale Rape
French Endive Cabbage Sprouts · Chinese Cabbage Leaves
Asparagus Spinach Upland Cress

Dasheen Sprouts Collards Cultivated Dandelions Beet Tops Native Mustard Turnip Tops New Zealand Spinach Russian Mustard

Edible Wild Greens

Pepper Cress Lambs-Quarter Sour Dock Smartweed Sprouts Dandelion
Marsh Marigold
Wild Mustard
Milkweed (tender sprouts and young

leaves) Pokeweed

Pursland or "pusley"

Receipt for Canning Greens

Frepare and can the day picked. Sort and clean. Place the greens in a wire basket, colander, or tie them in a piece of cheesecloth, and blanch them over steam for twenty minutes. This may be accomplished in an ordinary steamer or by placing a small amount of water under a wire rack in a kettle. Place the greens on the rack, cover the kettle tightly, and allow the greens to blanch in the steam formed from the boiling water, remove, cold dip, and pack tightly in the jar. Salt pork or olive oil, or a half teaspoon of salt may be added to the jar for flavor. It will not be necessary to add water to fill the jar as a sufficiently tight pack may be obtained from the greens themselves. Wash the rubber thoroughly, put the rubber and cover in position, and partially seal the jar. Place the jar on a rack in a kettle of hot water, having the water cover the jar by one inch. When the water reaches the boiling point, allow the greens to cook for 120 minutes. Remove the jar, tighten the cover, and invert to cool.

It must be remembered in preparing canned material for the table that it has already been cooked, and it needs only to be re-heated long enough to make it very hot and to mix it well with the seasonings added to it.

Receipt for Canning Blueberries

High bush blueberries are better than low berries for canning purposes, as the high berries are more acid and have a firmer texture.

Can fresh, sound berries the same day as picked. Look over the berries. Red berries may be left in, but poor ones should be removed. Place in a strainer, pour water over them to cleanse. Pack them in a clean jar, rapping the jar gently to get as solid a pack as possible. If the berries are to be used for pies, fill the jar with boiling water. If they are for souce, fill the jar with medium syrup which is made of equal parts of sugar and water brought to the boiling point. Wash the rubber ring thoroughly, put the rubber and cap in position, and partially tighten. Follow the directions for sterilizing as given in the receipt for canning greens, but cook the blueberries only 16 minutes after the water in the sterilizer begins to boil. After completing the cooking, remove from the sterilizer, tighten the cover, and invert the jar to cool.

POULTRY DEPARTMENT

Control of Lice and Mites

At this season of the year the damage done by lice and mites is greatest. It costs the poultryman heavily when he harbors many of them. These pests are

easily controlled if one understands their habits and applies the right remedy at the right time.

Lice are true insects which live continuously on the body of the bird, eating bits of skin and feathers and irritating the skin of the bird by sharp claws on their feet. They may be treated by dusting the hen thoroughly with a good commercial lice powder or by the following:

Lawry's Lice Powder

2 1-2 lbs. Plaster of Paris3-4 pt. gasoline1-4 pt. crude carbolic acid.

Mix the liquids thoroughly. Then mix in the Plaster of Paris. Work thoroughly and rapidly so that the Plaster of Paris will not harden and become lumpy. Press it through a wire screen (fly screen) twice. This keeps it from becoming lumpy. Allow this to dry for a few hours and put in an air tight jar to prevent weakening. This is a strong powder, and very little is needed. Only a small pinch under each wing and around the vent will be necessary. This powder is recommended for young chicks and sitting hens.

Mercurial ointment is a rather recent remedy for lice. Take one part mercurial ointment U. S. P. and two parts vaseline or axle grease, and mix thoroughly Apply a piece of this mixture the size of a pea under the vent and under each wing. Do not leave this in a lump, since the birds may eat it and be poisoned. Mercurial ointment is a deadly poison and should be labelled and handled accordingly. Two applications a year will usually keep fowls free from lice.

A dirt floor in the hen house or a dust wallow made by spading up a hole in the yard will usually control lice very well. The fowls enjoy the wallowing and the fine particles of dust stop up the breathing pores of the lice. The flock at the school has not been treated for lice, but has always had access to a dust wallow, and they have thus far remained free from lice.

Mites are close relatives of the spiders. They hide in cracks and under the perches in the daytime and at night suck the blood from the fowls. They may be easily recognized by their red color, and are usually in clusters. The red color is due to the blood sucked the night before. The nests should be examined occasionally for these pests.

To control these the roosting boards must be kept clean. Paint the perches and their supports with coal tar, creosote, or carbolineum, twice or more during the season. Kerosene or coal oil may be used, but will have to be applied once a week since it evaporates rapidly. Whitewashing the roosting chamber and roost boards may help some in their control. Mites multiply most rapidly in filthy quarters and unless checked may soon overrun the hen house.

Notice to Poultry Keepers

We have a few purebred surplus Rhode Island Red, Barred Rock, White Wyandotte and White Rock cockerels which we will sell at a reasonable price. These birds weigh from three to five pounds and are well developed and vigorous.

Frequently we have inquiries as to where pullets may be purchased, but are unable to direct these inquirers to parties having stock for sale. If anyone has pullets or other poultry stock for sale, kindly advise us: Poultry Department, Norfolk County Agricultural School.

Potato Blight

Potatoes are subject to attacks by two fungus diseases, early and late blight-Early blight causes the foliage to turn yellow and results in the death of the plant before the normal season of ripening. It usually results in small size tubers. Early blight is a leaf spot disease, and while these spots may run together and cause the death of the leaves, the individual spots are small in size, somewhat circular, and always stop at a vein or a mid-rib. Early blight never causes the decay of a tuber.

The other or late blight affects the leaves and if not prevented makes the tubers rot quickly after the plants have become infested. Late blight produces large blotches on the leaves and these do not stop at vein or mid-rib, but when conditions are ripe spread rapidly and kill the entire leaf. Bordeaux mixture is a preventive and not a cure. If showers become frequent in August, and particularly if blight makes its appearance, it is advisable to spray once a week during that month.

Late Cultivation of the Potato Crop

"Early cultivation between the hills may be deep, but all cultivations near time of blossoming should be shallow so as to disturb the developing roots as little as possible.

Ridging or level cultivation at blossoming time is a debatable question. During ordinary season the yield is not influenced by the method of culture, but slight ridging is advisable to cover weeds in the row, prevent sunburn, and to make the digging easier.

With plenty of moisture a high ridge is good, but in dry years this reduces the yield, and a moderate ridge, 3 inches to 4 inches high, and about one and one half feet wide would be better. This ridge should be broad and flat, rather than pointed, and dirt should be taken from the middle of the row.

Special care should be taken to avoid injuring vines or roots."

—Mass. Agri. College.

Spray Materials.

Spray materials do not adhere well to some plants, such as cabbages. This trouble may be overcome by the use of a "sticker." The solution may be made by boiling two pounds resin and one pound Sal Soda crystals in one gallon water until it has turned a clear brown color. Add this amount of material to fifty gallons spray mixture.

Celery Mulch

The manure mulch on celery beds must be 4 inches or 5 inches deep to properly conserve the moisture. Rather compact horse manure is probably the best material for this purpose. There can be little hope of success in growing celery on other than moist soils with large amounts of humus, unless it is possible to irrigate.

FERTILIZERS

It looks as though fertilizers would continue at high prices with a liability of shortage. In order to be sure of supplies for fall seeding, orders should be placed now, and provision made for the amounts needed for next spring. Potash has been out of the market for some time. Nitrates are being used for explosives, and the demand for sulphuric acid has increased their value so much that it has

had its effect on acid phosphate, on which we depend to treat phosphate rock for a large part of our phosphoric acid in fertilizers.

There are on the market so-called fertilizers which are of very little value, and purchasers should pay strict attention to the guaranteed analysis which is required by law to be stamped on each package.

The situation can be helped by using the resources at hand to build up the soil, lime, and legumes in the farm rotation.

ALFALFA PLOTS DOING FINELY

Each year sees an increase of alfalfa on our farms. It is now better understood, and good results are becoming more and more common. Many fields are making a splendid showing this year, especially the newly seeded areas. There was some winter killing noted in the older plantings, but we consider that it is profitable even with a two-year crop. The first year's crop, if properly put in, seldom fails to pay the expense of establishing the field, and if it does happen to partially winter kill, a fair crop can be harvested and the ground fitted for re-seeding. The second seeding is generally much better than the first, provided the location of the land is suitable for alfalfa.

It is now time to be preparing the land for alfalfa. The seed should be in the ground by the middle of August, in order that the plants may become well established and grow sufficiently to protect themselves for the winter.

While alfalfa is not adapted to the wide range of conditions under which clover will grow, there is a place for some of it on nearly all our farms.

We will be glad to meet those who wish to consider putting in alfalfa this year.

CLOVER

Every man in the dairy business is wondering how to reduce the cost of feeding his stock. Clover will help. It will not only make the hay crop more valuable as a feed, but it is one of the best crops for building up the soil. If clover is seeded into a soil that has been well prepared, and well limed, the returns are a high grade hay for dairy purposes, but we should not expect too much from it. Two years is the average life of the clover plant, but that two years is one of highest service. The clovers work into a short rotation, and do more than their share toward making a profitable farm. With plenty of corn ensilage and clover hay, the cow has an excellent chance to show her record as a producer.

Corn, grown after turning under a clover sod, can hardly help growing. It not only draws from the plant food supplied by the use of stable manures and fertilizers, but from the nitrogen which has been collected from the air by the clover plants. On nearly every farm we find wet or damp land where the red clovers do not do their best, but we can fall back upon alsike clover for these fields. It will grow on soils where acid conditions are difficult to correct. It is a good plan to seed alsike clover with timothy and red top. When seeded alone, the stems of the clover lie on the ground and make a mat that is difficult to cut. The grass serves to hold the clover up, thereby making it easier to cut.

SAVE VEGETABLE SEEDS

It is not the general custom of home gardeners to save their own supplies of seed, but there are reasons why at least part of the supply for next year's planting should be provided by selecting from the crop this season. Under ordinary

conditions, this county imports large quantities of seed, but America has this year been called upon to furnish vegetable seeds to Europe, which has depleted our own stock.

Good seed may be saved by selecting from the best plants. When in the garden procuring vegetables for the table, select and mark plants that are strong, vigorous and prolific, and let them mature their seed. It takes but a very few plants to furnish the seed required by the home gardener. A few ears of corn or a few bean pods left to ripen will be ample.

There are two classifications under which all vegetables come: annuals and biennials. Annuals ripen seed the same year as planted. Biennials ripen seed the next season after being sown. Annuals include beans, peas, corn, cucumbers, melons, squash, tomatoes, eggplant, peppers, lettuce, radish, spinach, etc.

Biennials include onions and the root crops, such as carrots, beets, parsnips and turnips, the cabbage family and parsley. With these varieties the plants must be grown one season and selected plants held over to the next season for the raising of seed. All of these sorts produce well, and it takes but a very few plants to yield enough seed for the family garden. It is well to select the desired roots from late plantings, so that they may be stored in prime condition.

Special directions for producing and selecting seed will be furnished to any who are interested.

MASSACHUSETTS THE MOST COMPLETELY ORGANIZED STATE IN THE UNION

This statement was made by President Butterfield of the State Agricultural College in a recent review of the Bay State's participation in mobilization work. He further states: "In my judgment the most efficient war emergency work in the country has been that done in mobilizing agriculture and promoting agricultural production."

Splendid results have been obtained through the operation of the Smith-Lever Act which developed extension staffs and placed County Farm Bureaus in active operation throughout the country. Massachusetts has a practically complete organization of Food Committees and Farm Bureaus.—Mass. Agr. College.

MASSACHUSETTS AGRICULTURAL COLLEGE TO SUPPLY A LONG FELT WANT

This year the Massachusetts Agricultural College is opening its doors to high school graduates over eighteen years of age for a two year special course in agriculture. This course gives a boy a practical knowledge in that which he elects of the following Courses:

- 1. General Agriculture.
- 2. Animal Husbandry and Dairying.
- 3. Poultry Husbandry.
- 4. Fruit Growing.
- 5. Market Gardening.

The rules governing unclassified students are:

Students not candidates for a degree (unclassified students) are admitted under the following provisions:—

 All unclassified students are subject to the supervision of a special committee.

- 2. No applicant under 18 years of age will be admitted as an unclassified student.
- 3. No entrance examination is required, but applicants must bring certificates showing that they have finished a four year high school course or its equivalent, and furnish satisfactory testimonials as to moral character.
- 4. No student of this or any other institution who has not done efficient work therein shall be permitted to register as an unclassified student.
- 5. Each unclassified student must take from the regular technical elective courses, and necessary prerequisites, a minimum of twelve credit hours a week.
- 6. In order to be admitted to any course, an unclassified student must have had all the prerequisite subjects for that course.
- 7. Every unclassified student must do all the work of the courses elected, and take all examinations therein. In order to pass such courses he must attain a grade of at least 60 per cent. An unclassified student who passes in less than 60 per cent. of his work will be dropped from college.
- 8. Any unclassified student may be dropped from college at any time if his presence in class is undesirable or his work is unsatisfactory; and no unclassified student will be allowed to remain in college more than six terms without the special permission of the faculty.
- 9. No unclassified student shall be allowed to participate in any intercollegiate contests.
- 10. Unclassified students are subject to the general regulations applying to classified students.
- 11. Every unclassified student should clearly understand that before any application for transfer to the regular registration for the B. Sc. degree will be considered by the Registrar, he must present all entrance credits either by certificate or by examination in the same way as is required of a student who enters regularly.

Further information can be obtained by writing Ralph J. Watts, Secretary, Massachusetts Agricultural College, Amherst, Massachusetts.

TIME TO STOP ORCHARD CULTIVATION

Orchard cultivation should be discontinued at once. Because seed is high and labor hard to get it will be wise in many cases not to sow a regular cover crop, but allow the weeds to grow. When the cost of seed is considered we believe that rape is the best cover crop to use this year. The following table gives the rate of seeding and approximate cost of seed at present prices:

			Cost seed
Crop	Rate per acre	Cost seed	per acre
Rape	2 lbs.	. 12 per lb.	.24
Buckwheat	1 bu.	$3.25 \mathrm{~per~ton}$	3.25
Rye	1 1-2 bu.	$2.50 \mathrm{~per~bu}$.	3.75
Barley	1 1-2 bu.	2.50 per bu.	3.75
Clover	12 lbs.	.25 per lb.	3.00

MARKETING

The question of marketing confronts the grower at this season of the year. When is the proper time? How shall it be done, and where?

The questions seem to be the first ones in the mind of the average grower, but to the man who considers quality of utmost importance they become of less consequence each year as his products become known. Nine out of ten growers. when asked as to the most unsatisfactory part of their business, will say that the market end is the most difficult to master. The dealers, on being consulted as to why so many market returns do not meet the expectations of the grower, do not hesitate to emphasize that the lack of quality is usually the cause of losses.

There is much doubt oftentimes in the grower's mind as to what to market, the result being that unmarketable goods are sent to the dealer mixed in with a lot of good material. It is a difficult job to raise the price of a bushel of low grade products by mixing in a peck of first quality products; but a bushel of No. 1 apples will lose its high value mark very rapidly when a peck of No. 2 apples is mixed in. It seldom pays to grade unless it is done thoroughly. If 75 per cent. of the culls are taken out and 25 per cent. left in, the grower is the loser, as the price for the lot will be whatever the culls are bringing.

Buyers as a rule, figure on grading after goods are delivered to them. This takes time and costs money, and both these items can be reduced when the goods are first packed by the grower. When the buyer gets the goods evenly graded and well packed, he can afford to pay for the service which has been rendered.

If a clearer understanding were established between producer and grower, much better prices could be returned to the grower. Every grower should visit the market, interview his dealer, and find out exactly what the trade demands.

TAKING CARE OF SURPLUS VEGETABLES

The amount of surplus garden products being raised in the gardens of the various communities of the country has led the various committees on food production and conservation to think of several different plans for using this material. Four plans are now either in operation or being considered quite seriously by as many different towns in this locality. The various plans are:

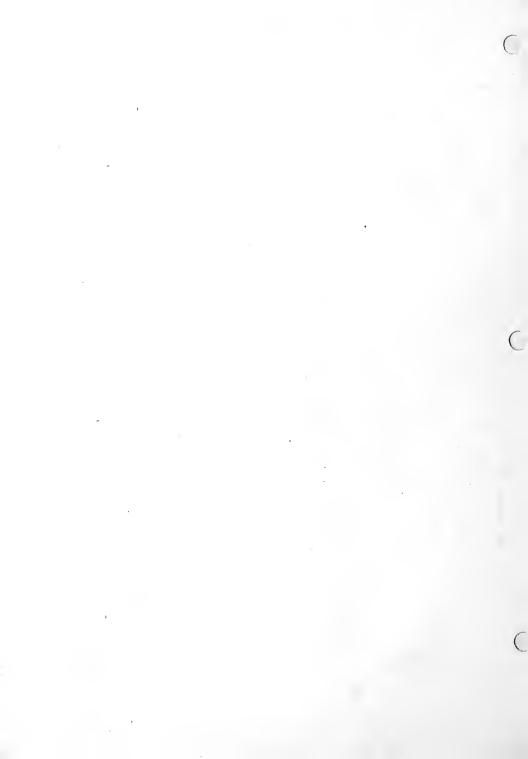
The Quincy plan: This city has set aside a public market place in which all those having vegetables for sale can bring them on Wednesdays and Saturdays. The market is open during the day on Wednesday, and the day and evening on Saturday. The committee has provided tables which they rent to those who care to use them to display their goods on, and also they set aside a place for wagons to back in their loads and sell direct from them. This market is governed by rules, so that it will be orderly and meet the requirements of the people who wish to visit them and purchase the products offered. This plan seems to have been worked out in good shape for a large community like the City of Quincy.

The Weymouth plan: This town has adopted the plan of having a central depot to which all surplus products of the gardens of the town can be brought. It is not the plan of this committee to sell in a retail way, but to put the vegetables before the dealers in the community and the surrounding towns.

The Walpole plan: Walpole has adopted an exchange system by the use of information cards which it has printed and will distribute among the townspeople. The card asks for information as to the surplus products which the various gardeners will have for sale, and also asks for information from any who wish to purchase the different vegetables to store for winter use. After these statistics have been collected, they will be tabulated and posted on the bulletin boards which have been arranged for in the various shops of the town. Also, those that have vege-

tables for sale will be notified of those who wish to purchase through a postal card system.

The Bellingham plan: Bellingham has divided itself into neighborhood sections. Each neighborhood has had a leader appointed who keeps posted on the amount of surplus products in his territory, and also of any who are short of certain vegetables that they wish to have. These neighborhood leaders then inform those who wish to purchase or sell of the names of those who wish to exchange.



NORFOLKCOUNTY AGRICULTURAL

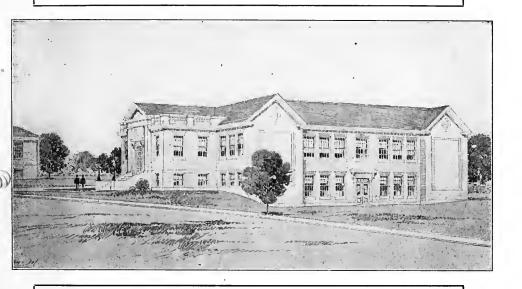
AND HOME MAKING BULLETIN

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SCHOOL STAFF.

FREDERIC W. KINGMAN	Director
LAURENCE A. BEVAN	Market Gardening
CAREY W. CARRICK	Poultry Husbandry
HORACE C. FUNK	Animal Husbandry
CHARLES W. KEMP	Weymouth Dept.
MARY E. SHEPARD	Sec'y and Accountant

FARM BUREAU DEPARTMENT.

WILLARD A. MUNSON	.County Agricultural Agent
STELLA S. SIMONDS	. Home Demonstration Agent
JOHN T. DIZER	. Boys' and Girls' Club Leader



TYPES OF HOME VEGETABLE STORAGE PITS

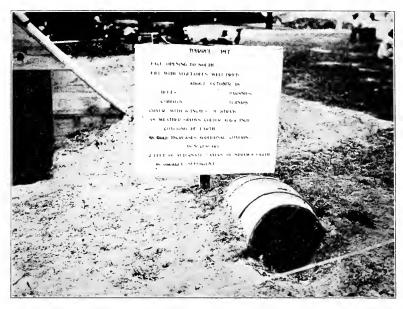


FIG. 1. BARREL VEGETABLE PIT

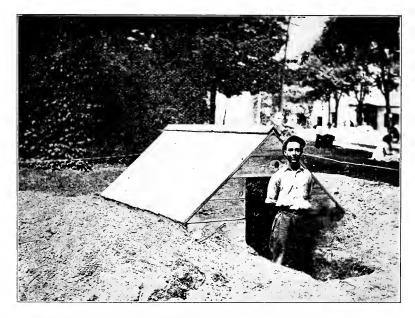


FIG. 2. PERMANENT PROTECTED PIT



AGRICULTURAL SCHOOL OPENING

We are pleased to announce that the Norfolk County Agricultural School building, now nearing completion, will be ready for occupancy when the fall term opens.

Students should present themselves for enrolment on the following dates: candidates for admission to the Home Making courses, Monday, September 10; candidates for admission to agricultural courses, first year students, Monday, September 24, second year students, Monday, October 1.

It is essential to the establishment of home making courses this fall that not less than twenty young women between the ages of 14 and 25 shall apply for admission on or before September 10. Teachers can not be appointed, nor equipment installed unless a minimum number of students is assured. The July bulletin contains an announcement of the home making courses.

For further information concerning agricultural and home making courses, consult the Director, the Trustees, or the members of the Advisory Committee of your home town or city.

Men's Advisory Committee.

Avon	To be appointed
Bellingham	To be appointed
Braintree	George Arnold

Brookline Willard E. Ward, Daniel G. Lacey

Canton A. A. Boutelle Cohasset To be appointed Dedham Henry Bingham Dover R. W. Hale Foxboro Walter Mann Franklin George Allen Holbrook Frank B. Brooks Medfield Leon E. Mayo Medway Charles A. Wilson Edward E. Adams Millis Milton Charles H. Thaver Needham To be appointed Norfolk William M. Hill Norwood William P. Nickerson Plainville Sylvester Smith

Quincy Russell A. Sears, Harry A. Whitelaw

Randolph Charles R. Powers
Sharon H. F. Nelson
Stoughton C. B. Turner
Walpole Edward L. Shepard

Wellesley John A. Tilton Westwood I. I. Margeson

Weymouth Bowdoin Smith (South Weymouth)

Wrentham Fred E. Gilmore

Women's Advisory Committee

Avon Mrs. E. C. Glover—Two to be appointed
Bellingham Miss Lottie J. Burr—Two to be appointed
Braintree Mrs. Eugene T. Webber—Two to be appointed
Brookline Mrs. Frederick Mead—Two to be appointed
Canton Mrs. A. A. Boutelle—Two to be appointed

Cohasset Mrs. O. Howe, Mrs. Russell Tower—One to be appointed

Dedham Three to be appointed

Three to be appointed

Foxboro Mrs. L. B. Baker, Mrs. Ira Jenkins, Mrs. A. W. Owen.
Franklin Miss Ella Belyea, Mrs. Grace Burns—One to be appointed
Holbrook Mrs. Frank B. Brooks, Mrs. S. B. Field—One to be appointed

Medfield Mrs. P. H. Leahy—Two to be appointed

Medway Three to be appointed

Millis Mrs. Ruth Ingraham, Mrs. Flora B. Mundy, Mrs. Evan F. Richardson

Milton Three to be appointed

Needham Mrs. Moses Williams, Jr.,—Two to be appointed

Norfolk Mrs. Charlotte B. Ware, Mrs. Hattie B. Day—One to be ap-

pointed

Norwood Miss Helen C. French, Mrs. Eugene Endicott Mrs. H. F.

Winslow

Plainville Mrs. Sylvester Smith—Two to be appointed

Quincy Mrs. J. D. MacKay, Mrs. Harry A. Whitelaw—One to be ap-

pointed

Randolph Three to be appointed

Sharon Mrs. F. B. Goode, Mrs. J. G. Palfrey, Mrs. S. A. Weston Stoughton Mrs. Nathaniel Faxon, Mrs. J. D. Kelsey—One to be ap-

pointed

Walpole Mrs. Charles S. Bird, Mrs. Joseph S. Leach—One to be ap-

pointed

Wellesley Three to be appointed

Westwood Mrs. E. H. Child, Mrs. Spokesfield, Mrs. Catherine M. E.

White

Weymouth Mrs. Ella Richards
East Weymouth Mrs. R. S. Hoffman
South Weymouth Miss Sarah E. Brassill
Wrentham Three to be appointed

ANNOUNCEMENTS

The Norfolk County Agricultural School will hold an Exhibition Day on Saturday, October 13. At this date, parents and friends of the pupils may get acquainted with the school and its work. This day is be the boys' day, and the

main part of the program will be carried out by them. It is planned to have each pupil bring products which he has grown during the summer, such as exhibits of vegetables and poultry, field corn and potatoes. A clean milk contest and a plowing contest by the pupils will be an interesting part of the program. All who are interested in the school, and especially the parents, will help make the day a success by being present in large numbers.

FIELD DAY

The Norfolk County Agricultural School is planning to hold a field day on Saturday, September 15, at the school in Walpole. The program will include games, an inspection of the new school building, and other features. We hope that former students and all boys who are interested in the Agricultural School will be present. Come and bring your lunch and have a good time. Ice cream will be served.

Last spring arrangements were made by the Norfolk County Agricultural School with a wholesale house to supply the people in the county with glass jars at the rate of 6 cents each for pint jars and 7 cents each for quart jars. The "Queen" jar, one of the most satisfactory jars on the market, was selected.

On account of the embargo on shipping, only a portion of the order was delivered in June, and no promise could be given as to when the remainder of the jars could be delivered. In view of these circumstances, it seemed advisable to substitute for the "Queen" jar, a jar that could be delivered immediately.

The "Ball Ideal" jar, which is manufactured by one of the oldest and most reliable glass manufacturers, was substituted. This shipment of jars proved to have covers made of brittle glass, and as result many of the covers broke during the sterilization period.

We are anxious to rectify this difficulty, and have arranged with the consignors to send satisfactory covers of their own make to replace all the covers on these jars. We are glad to give the new covers to people who purchased these jars.

We regret that circumstances made it necessary to make a substitution for the jars originally ordered, but we do not feel that the situation could have been avoided.

The Norfolk County Agricultural School staff spent the week of August 6 to 10 at the annual conference arranged by the State Board of Education. This included a tour of the county agricultural schools and high school agricultural departments in the eastern section of the state. Most of the week was passed at the Bristol County School near Taunton. One of the features was lectures by Professor Hall-Quest of Virginia. The conference was instructive and broadening.

NOTES ON POULTRY CONVENTION

The annual Poultry Convention was held at Amherst, July 25 to 27. It is regretable that more poultrymen could not attend. Special emphasis was placed on economical production and particularly on feeding. At former conventions much of the program has consisted of elementary discussions of production, but these were omitted at this time and only the economic phases were considered.

This discussion of feeds and feeding was led by members of the college Department of Poultry, by representatives of grain dealers, and by practical farmers and poultrymen.

The keynote of the grain dealers was economy by intelligent buying. Poultrymen and farmers need to study the grain markets and buy in large quantities at the season of the year when prices are lowest. While the time for these lowest prices could not be predicted, it was stated that low prices usually come when the new crops begin to come into the market. These new crops are usually on the market about one month after they are harvested.

Mr. Cockron, representing the Quaker Oats Company, said that he wished to present three C's for poultrymen—Cash, Co-operation, and Combination. He suggested that poultrymen get together in groups and buy in large quantities this fall when the price is lowest. Mr. Cockron said that every fall the wholesale houses make a season's price on chicken feeds which runs from November to June. If poultrymen could get together in time, watch the prices from the papers, and when low prices prevail place their order for a year's supply to come in car lots once a month, a great deal could be saved in buying grain. Mr. Cockron assured us that many grain dealers are willing to order for farmers in this way. Some other suggestions for saving were cash buying, doing one's own hauling, and hauling from the dealer's car before the dealer handles it, since each time the grain is handled the price is increased. Professor Graham said that when the grain dealers themselves advised farmers to co-operate in buying, it was indeed time for them to seriously consider it.

The representatives of the Massachusetts Agricultural College Poultry Department emphasized the following points in saving poultry feed:

- 1. Simplify ration, leaving out those feeds which are high in price for their food value.
- 2. Cull all young stock that does not show proper development and dispose of all hens not laying at this time, except those needed for breeding.
- 3. Buy commercial scratch feeds only when all the grain is plump and there is freedom from weed seeds. Otherwise, mix your own scratch feed.
 - 4. Avoid overfeeding of scratch grain—look in litter to see if any is left.
- 5. See that mash hoppers are constructed so there will be no waste. Use chicken wire on flat hoppers.
 - 6. Destroy rats, and store feed where rats cannot enter.
- Provide range in cornfields or on other crops which poultry will not destroy, or give abundance of green food.
- 8. Encourage birds to eat more mash since it is cheaper than grain. This can be done by feeding wet mash in the afternoon.

The suggestions of practical poultrymen for economical production might be summarized as follows:

- 1. Provide free range since in this way birds pick up much food that would otherwise go to waste.
- 2. Make poultry keeping a part of diversified farming, rather than have specialized poultry keeping.
- 3. Grow all the crops possible for poultry feed—corn, oats, wheat, alfalfa, mangels and rape.

D. Sanborn, a practical poultryman of Holden, Massachusetts, said he had built up a rundown farm with alfalfa and hens. He strongly recommends that poultrymen grow all the corn and alfalfa possible.

It was pointed out by Mr. J. B. Abbott, County Agent for Middlesex County that since 1900 corn and other grains had taken a gradual rise in price. He thinks that we should consider a change in our system of agriculture, growing along with our poultry some corn, oats, buckwheat and mangels. There is little likelihood that grain prices will be very low in the next few years, and these crops can be profitably grown here.

Dr. Brooks, Director of the Experiment Station, gave a very interesting address on the value and conservation of poultry manures. This is given in condensed form in a circular which he has prepared, and which may be secured by writing the Extension Service at the College.

A notable feature of the Convention was the address of Mr. Edward Brown, of England, an international authority on poultry conditions. Mr. Brown gave a valuable address on poultry conditions in England and Europe. He said that at the beginning of the war much poultry was killed off in England. Eggs increased in price 80 per cent. and poultry increased 40 per cent., while grain increased only 50 per cent. At present grains are cheaper in England than in America, with eggs about the same price or a little higher.

The fancier was the first and hardest hit by grain prices, and many of them had to quit the business. The utility poultryman has suffered less and of these the farmer poultryman has fared better than the man who keeps poultry only. The farmer poultry keeper can produce cheaper because of free range and home grown grain. These men are still making poultry pay a profit. The backyard flock is receiving a great consideration in England and is doing much in solving the food situation.

Some grains and feeds are hard to get in England at present. Wheat is forbidden to be fed. Certain African foods not formerly used are now coming into use.

Eggs and poultry will never return to old values, because they will cost more to produce. Hence, the consumer must be educated to pay more. There will be a great opportunity for America, after the war, to sell breeding stock in America, England and Europe, since much of the normal quantity of stock has been slaughtered. France and Belgium have very little poultry at present. Germany has increased its poultry two thirds, and there is little in Austria Hungary or Poland. These countries must be restocked after the war. American poultrymen should not dispose of their breeding birds, even if they are kept at a slight loss, for there will be ample opportunity after the war to more than recover any losses now incurred.

To sum up Mr. Brown's advice: Poultry keeping should be a part of general farming rather than a specialized industry. This means growing of grains and green food and providing free range. American poultrymen should not dispose of their breeding stock at this time.

Present Poultry Conditions

At this time many are asking the question, "Can I afford to keep my poultry this winter?" In view of the recent increase in price of eggs, and the predicted large corn crop, as well as a practically normal crop of wheat, oats and barley,

which should cause lower prices, it is doubtful if it is a wise policy to dispose of laying stock at present. The pullets should be retained by all means, as well as the best hens. Close culling of the hens should be practiced at this time. Hens that molt early are usually poor producers and should be discarded. Judgment must be used in this method by selection, since sudden changes in housing conditions or feeding might cause the molting of high producers earlier than normally. The breeding stock should be maintained even at a small temporary loss this fall, for it will be needed next spring for furnishing hatching eggs.

At present prices, few poultrymen can afford to feed corn. Wheat, oats, barley and corn all have about the same total nutriment or food value. By comparing the price per 100 pounds, we can easily determine which feeds are most economical. Oats is at present cheapest but should be supplemented with another grain. Shrunken wheat, which has food value equal to other wheat, is at present economical compared with other feeds.

The scratch grain we are feeding at present at the school consists of two parts by weight shrunken wheat and one part oats. This is giving satisfactory results for both old hens and young stock nearing maturity. The mash for layers is kept before the fowls in hoppers and is as follows:

10 lbs. Wheat Bran

10 lbs. Gluten Feed

10 lbs. Dried Brewers' Grains

5 lbs. Oil Meal

5 lbs. Hominy Feed

5 lbs. Standard Middlings

5 lbs. Beef Scrap

Plenty of green food should be supplied the poultry if free range is not available. This will reduce the cost of feed. Backyard flocks of 20 or 25 pullets should be encouraged since these may often be kept on products which otherwise go to waste. It is well known also that these small flocks give much better production than the large commercial flocks.

Notice to Poultry Keepers

We still have some very good Barred Rock and White Wyandotte Cockerels which are for sale for breeding purposes at a reasonable price. Write the Poultry Department, Norfolk County Agricultural School.

WANTED—20 Single Comb Rhode Island Red March or April hatched cockerels for breeding purposes. George Hagopian, Wrentham, Mass.

HOME VEGETABLE STORAGE

Storage should be recognized this winter as one of the cheapest methods of keeping vegetables. For the commercial grower, storage is a necessity, as the market is flooded at a certain period and later there is a scarcity of products. Many farmers depend upon their stored products for an additional income during the winter months.

For the householder having a surplus from the garden, a uniform supply of vegetables is assured until late winter or early spring, if storage facilities are available. There are several methods of storage, the house cellar being the most convenient A cellar without heat and with a dirt floor gives almost ideal conditions. Our cellars commonly contain heaters and in this case it is best to partition off one corner that has a window. The partition may be constructed by erecting two by fours from the floor to the ceiling, and making a dead air space by sheathing with matched boards or siding. Better insulation may be obtained by putting building paper under the siding. Begin to ventilate by opening the window on cold nights and closing in the day time. This window should be darkened as many vegetables deteriorate if kept in a light place. If the cellar floor is concreted, it would be better to put a shallow layer of damp loam or sand on it to supply moisture.

Out of door pits are very satisfactory but hard to get at in freezing weather. This difficulty may be overcome by opening the pits on warm days and taking from them a supply of vegetables large enough to last for two or three weeks. The common pit is made by selecting a well drained place near the house and then digging a hole about ten inches deep. The bottom should be level and the sides straight. This pit may be in the shape of a rectangle, three to four feet wide, and as long as desired to accommodate the supply of vegetables. Another type of pit which has been found very convenient is made by sinking a barrel into the ground one-half or two-thirds of its depth. For convenience it may be placed lengthwise (Fig. 1). For a farm or possibly a community, it would pay to build a protected storage pit (Fig. 2). This is constructed of cheap boards over a rectangular pit six by eight feet and about eighteen inches deep. This pit is capable of holding about thirty bushels of produce. These pits should be extended north and south, and means for ventilating should be provided in them all, either by placing a piece of tile so that air may come up through the covering of the open pits, or by opening and closing the door of the protected pit. As the weather settles in freezing cold, the ventilation will not be needed, and the tile may be removed.

For successful storage certain conditions are necessary. The vegetables must be free from disease and bruises. They must be handled when the weather is cool, and put into the pits or storage room well dried. The atmosphere of the storage room should not be too dry. In order to overcome wilting of root crops, they may be placed in shallow boxes and covered with a few inches of sand or earth.

Any of the root crops and cabbages may be stored in an out door pit. In the open pit the vegetables should be arranged in a sloping pile about two feet deep at the ridge. Cover with about six inches of straw, hay or old vines from the garden. As cold increases put on three inches of soil. After this three inches of soil has begun to freeze quite hard, put on an additional six inches of earth. Late in November or early in December, more covering of straw and earth should be added. Generally, two feet of alternate coverings of straw and earth will protect the vegetables in any of the different types of out door pits.

The other vegetables may be stored in various places. Onions and squash require dry storage. Onions should be put into crates and kept in a room having a temperature as near 38 degrees as possible. Squashes should be cut from the vines, handled very carefully in order not to bruise them, and stored in a dry room where the temperature will run between 50 and 60 degrees. It is not wise to pile

squash over two deep as the pressure of one against the other causes bruising, where decay is very sure to start. Celery is best kept when harvested with the roots on, and set compactly in a box of soil. The roots must be kept moist but the tops should never be wet. To accomplish watering the celery without wetting the top, the water may be applied by placing a drain tile in an upright position between the plants, or by using a piece of hose. Tomatoes can be kept a long time if well grown, firm, green fruit is selected. They should be handled carefully and stored at a temperature of 50 degrees. Excellent results may be obtained when ripening green tomatoes if they are wrapped in paper and packed in shallow boxes not over three deep.

SELECTING VEGETABLES FOR EXHIBITION.

Those who intend to exhibit vegetables at the fairs this fall have several important factors to keep in mind when the selections are being made for the show.

To make a winning exhibit, the first essential is quality. This is determined by two standards, external appearance and edible quality. In many cases, the first gives evidence to the second, and most judging is done on external appearance.

The quality of a display of vegetables is determined by their trueness to type in size, color, freedom from blemishes and uniformity. Trueness to type means having the characteristics accepted by the majority of the best informed to distinguish a certain variety. For example, a Danvers Half Long Carrot should be 7 to 8 inches to the tip of the fleshy root, about 2 inches across the crown and three-fourths of an inch in breadth; one inch from the tip, the surface should be smooth, free from disease or blemishes, fine grained dark carrot color, with a small core. Similarly an ideal stone tomato should measure about 2 1-2 to 3 inches across, 2 to 2 1-2 inches deep; it should have a deep red color, very smooth skin, free from furrows, small blossom scar, very firm and solid texture.

After the grower decides upon the type of vegetable he wishes to prepare for exhibit it is then important to see that the specimens are uniform, medium sized, free from disease and other injury. The specimens should be as nearly alike in every respect as it is possible to get them. Many a good exhibit is spoiled because one vegetable is either larger or smaller than the rest, or because some blemish due to insects or disease mars the appearance.

When going to the field to gather the vegetables from which the required number is to be selected for the exhibition hall, it is well to obtain a much larger number of specimens than will be needed. From these take the best samples, keeping in mind the above mentioned factors that the judge will always consider when awarding the prizes. An experienced exhibitor often starts with one hundred specimens and goes through them five to ten times before he is satisfied with the quality of his exhibit. Each time he eliminates all individuals that show any defects. It is always well to have two to four extra specimens to select from at the exhibition hall, but it is not wise to place in the exhibit more than the premium list calls for.

Attention to details in selection and following the rules of the exhibit is all important.

For those who are inexperienced in the selection of vegetables for the show hall, the following suggestion may be helpful. Take a seed catalog and find a cut of the variety of vegetable being prepared for exhibition, then select one as nearly like

the picture as possible. After one has been found, find the rest of the required number to match it.

The competition at the local exhibitions is of great educational value. The vegetable grower exhibits to win or to find out how to win, and by so doing he learns how to improve the quality of his products. The fair also stimulates pride in the products of one's own labors; it emphasizes the importance of close selection and gives opportunity for renewed efforts toward efficiency in production.

The opportunity given for discussing with fellow gardeners at the exhibition hall the problems which have been contended with during the season is in itself a big educational advantage.

FROSTED CORN SILAGE

The fact that corn if frosted and immediately put into the silo will still make good silage may prove of great advantage to corn growers who were late in planting their corn last spring. Many who are growing corn for ensilage like to have it reach the glazed stage before harvesting. For this, it is necessary to allow all the time possible for growth, even if it is eaught by the first frost. Every extra growing day after the corn has reached the milk stage adds much to the solid constituents of the silage, as in these last few days there is a very important transfer of material from the roots into the stalk and ear. In fact, the corn plant when it reaches the milk stage contains only 65 per cent. of the dry matter that it contains two weeks later.

Aside from the increased feeding value, the corn when it has reached the glazed stage contains a much larger percentage of starch and a smaller percentage of sugar. The high proportion of sugar in immature corn is one of the main reasons for the high acidity in the silage made from it. The amount of acid in the silage is found to be very nearly in proportion to the sugar present in the corn.

When it has been necessary to wait until after the first frost to cut corn for silage, it is essential that the plants be not allowed to stand frosted in the field. They must be cut and put into the silo at once. The chief effect of the frosting is to reduce somewhat through evaporation the water content of the plants. In packing frosted corn, therefore, it will probably be necessary to add some water to the blower as the corn is being run through the cutter. The amount to be added depends very largely upon the stage of maturity. If cut when the kernels are beginning to dent, the lower leaves are often quite brown and naturally need some extra moisture. Only enough water should be added to make the material quite damp, so that it will pack firmly. Where frosted immature corn, still far from the glazed stage, is packed, little or no water will be required.

SHALL WE RAISE HEIFER CALVES?

There has been no survey taken in Massachusetts to show the decrease in heifer calves, but if our dairymen have allowed one-half the increased percentage that has been slaughtered in New York State during the past year over the previous year, then we predict a shortage of nearby milk for some time to come. The continually climbing price of feed and the comparatively slow rise in the price of milk has made it almost necessary for many farmers to veal their heifer calves and in some cases to reduce their milk producing herds.

If New York State census figures are any indication of the general conditions through the northeastern part of the United States, we are likely to be continually shorter of dairy products for some time to come. These figures taken last spring showed that there are now about 78,000 calves less than a year ago—a shortage of 26 per cent. Looking over the situation from a wider field, it will be remembered that there are over two million less cattle in France than before the war. We feel certain that large numbers have been slaughtered in Germany, and that the neutral countries have suffered unusual loss.

This makes it evident that there will be a tremendous demand for dairy products from abroad for several years after peace is declared. It is the belief of many that the consumer of milk in this country is just beginning to realize its real food value, and will continue to use it more freely as the price of other food materials advances.

The dairyman who is looking into the future and preparing to meet the demand sees a bright lining to the present dark cloud, and will do well to raise every heifer calf that promises to make a high producing cow. When we say "raise heifer calves that give promise," we mean those from high producing cows and pure bred sires backed by authentic records. The time has passed when an inferior calf will grow into an inferior cow and make its owner a profit.

Some consumers are substituting various vegetable fats for animal fats, but investigations are showing that animal fats supply certain substances important in building strong vigorous bodies which are not found in vegetable fats. The meat supply of the world is growing smaller and smaller and milk, butter and cheese will be more in demand as meat disappears from our tables. Consumers are realizing that dairy products are a comparatively cheap source of food. They will realize this fact more and more as the agencies which are preaching food values continue to spread information concerning the low cost of obtaining body building materials in milk, butter and cheese.

Think this over when you sell a heifer calf for veal, knowing that she has the backing of a good dam and a pure bred sire.

Professor E. L. Quaife says:

"There are several precautions which should be observed in the feeding of the young calf.

- 1. The calf should receive the milk of its mother for the first two weeks if possible. A small amount of skim milk, say one pound per day, may be substituted for one of whole milk when the calf is a week old. The calf may well be fed on skim milk diet at the end of eighteen to twenty-one days.
 - 2. Milk of even temperature should be fed. About 98 degrees F. is right.
- 3. Grain should not be fed with the milk, except possibly a small amount of linseed meal or dried blood.
 - 4. Feeding pails should be clean.
 - 5. Milk should be sweet.
 - A calf should never be overfed.

Grain and hay should be provided for the three weeks old calf. Whole or ground oats, or one-fourth oats, one-fourth bran, one-fourth linseed meal, one-fourth corn meal is a good grain mixture for a calf."

HARVESTING BEANS

Professor Earl Jones

Beans are harvested just before they begin to shell. In dry weather a few of the pods and leaves may still be green, but in wet weather most of the leaves should have dropped off so that the beans will cure as quickly as possible.

Harvesting may be done by hand or with a bean harvester. With a bean harvester, two rows are thrown together. A man with a pitch fork should follow the harvester and place the beans in small piles, shaking out whatever dirt or stones the harvester may have gathered. A side delivery hay rake is sometimes used to put four rows in one pile. Common dump rakes are not so satisfactory.

If some of the leaves are still green, the beans may be allowed to lie on the field for a few hours before piling. Otherwise, they should be placed in small piles or windrows soon after pulling. The piles should be built high and rather small at the bottom to insure quicker curing. Beans should be left in the pile for a week or two until they are sufficiently dry. It is considered a good indication that the beans are ready for storing in the barn when pressing with the thumb leaves but a slight impression on the bean.

Rain, while the beans are in the pile, will not injure them if they are turned over after the storm. They should be handled as little and as carefully as possible in order to avoid shelling.

When the beans are thoroughly dry they should be stored in a barn to await threshing. They should not be tightly packed in the mow. They may be left until the grower is ready to thresh them by hand or by machinery.

HOME-MAKING DEPARTMENT.

JELLY MAKING

In making jelly, always select fruit or berries that are firm and not over ripe. The juice from certain fruits, such as grape, apple, crab apple, orange, and currant, is better suited for making a natural fruit jelly than juices from other fruits, as these fruits contain the properties necessary for jelly making. The best fruits for jelly making contain a substance known as pectin and acid. Pectin, the essential jelly making substance, is not present in some fruits in sufficiently large quantities to make jelly without the addition of pectin from some other source.

The peach, strawberry and cherry are examples of fruits which contain acid but are lacking in pectin. Pear and quince contain pectin but are deficient in acid. If the substance which is lacking is added to each of these fruits, it will be possible to obtain a good quality of jelly.

Pectin for use with fruits with little pectin may be made from one of the two following receipts:

Orange pectin: Cut the outside yellow rind from the peel of the orange. Remove the white peel, and pass this peel through a food chopper. For each pound of this prepared peel add two pounds of water and four tablespoons of lemon juice. Mix thoroughly and allow to stand fifteen minutes. Add two pounds of water, boil ten minutes, and let stand over night. Next morning boil ten minutes, allow it to cool, press to remove the juice, then drain the juice through a flannel bag. If not desired for immediate use, it can be poured into sterilized bottles boiled in a water bath for fifteen minutes, and kept until needed for jelly making.

Apple pectin: One pound of apple pulp, skins, and cores, juice of one lemon, four pounds of water. Boil from one-half to three-fourths of an hour, press the juice through a cloth bag, then allow this juice to drain without pressure through a heavy flannel jelly bag. This pectin may be bottled and kept as directed in the receipt for orange pectin.

Some water is usually added in extracting the juice from all fruits, the amount depending upon the composition of the fruit. For apples, quinces, and such hard fruits, wash and slice, and add three cups of water to each pound of fruit. For berries, grapes and currants, add one cup of water to each pound of fruit. The fruit should be cooked until tender, then allowed to drip without pressure through a fine cheesecloth or flannel jelly bag. After cooling, the juice should be tested to find out the amount of pectin present. The amount of pectin in the juice determines the proportion of sugar to add to the juice. A most valuable aid in determining when a juice contains deficient pectin is the alcohol pectin test. Pour a teaspoon of fruit juice into a cup, and pour into the cup a teaspoon of grain alcohol of 95 per cent. strength. Mix by gently shaking. Then pour into a spoon. If a large quantity of pectin is present, it will appear in a solid clot when poured from the cup. This indicates that equal parts of sugar and juice may be used. If, however, the pectin has not gathered in a mass, the amount of sugar should be increased.

Lemon juice may be added to fruit juice which is deficient in acid.

When the proportion of sugar to juice has been determined, measure the fruit juice and place over the fire to cook. When the juice begins to boil, add the sugar and stir until the sugar is dissolved. After the sugar has dissolved the cooking should be as rapid as possible.

A thermometer can be used to great advantage to show when the jellying point is almost reached. No exact temperature can be given because the jellying point differs with different fruits, with the quantity of sugar used, and with the same fruit at different seasons. In cooking apple jelly the temperature is seldom less than 105 degrees C. or 221 degrees F. With grape and current jelly between 106 degrees C. and 107 degrees C. or 223 degrees F. and 224 degrees F. will give the best results.

The most convenient means of determining when it is finished is to test it with a spoon. Dip the spoon in the boiling mass, remove and cool for a few seconds, and then allow the jelly to drop from it. When the jellying point is reached, it will break from the spoon in flakes or sheets. When this jelly stage is reached, remove from the fire immediately and skim. Skimming at this point saves waste.

After skimming the jelly, pour at once into sterilized glasses and set aside to cool. Cool as rapidly as possible away from dust and flies. When the jelly is cold cover it with melted paraffin.

Jelly should be stored in a cool, dark, dry place.

Apple Jelly

One pound fruit, two pounds water. Boil together for one-half or three-fourths of an hour and strain.

Determine the amount of sugar to be added by the alcohol test previously given. Bring the juice to a boil, add the sugar, and cook as rapidly as possible until the

jelly point is reached. Remove from the fire, skim, pour into hot sterilized glasses, and when cold cover with melted paraffin.

Grape Jelly

Four pounds grapes, one pound water. Crush and boil together for 20 minutes. Strain through a jelly bag.

Follow the general directions given for making apple jelly.

Mint Jelly

Take one pint of orange pectin as prepared above. Heat to boiling. Add one pound of sugar, boil until the jelly stage is reached. At this point add Burnett's green vegetable coloring, a very small quantity on one tine of a folk will be sufficient. Add two drops of oil of peppermint, stir thoroughly, pour into glasses.

Write today to the U. S. Department of Agriculture, Washington, D. C., for free Farmers' Bulletins:

- 839. Home Canning by the One-Period Cold Pack Method. (Northern and Western States.)
- 841. Home and Community Drying of Fruits and Vegetables.
- 853. Home Canning of Fruits and Vegetables (Southern States.)

BOYS AND GIRLS CLUB MEMBERS

Displaying the results of their labors seems to be the chief interest of the boys and girls at the present time. Nearly all the towns have arranged for local shows with suitable prizes for vegetable displays and live stock.

The Weymouth Fair Committee, through the interest of Miss S. E. Brassill, Weymouth garden supervisor, arranged special classes for county club competitors at the fair August 31, September 1 and 3, as follows: For the Market Garden Club, best collection of vegetables, 5 varieties, 5 specimens of each, seven prizes totalling \$32; for the potato club, plate of 7 potatoes, eight prizes totalling \$13. The Pig Club exhibit is scheduled as a special feature of the children's department. Thirty-five pigs can be accommodated and prizes will be awarded according to the number exhibiting. The winners at the Weymouth Fair will probably be a part of Norfolk County's representation at the Brockton Fair early in October.

The committee of the Brockton Fair has announced the following special pig club project open to pig club members in the four counties surrounding Brockton.

\$206 In Prizes

\$106 given by the Brockton Fair Association.

\$100 given by Mr. W. B. Cross.

Exhibits

Class A—Pigs over six months of age October 1, 1917. Prizes: First, \$8; second, \$6; third, \$4; three honorable mention each, \$2.

Class B—Pigs under six months of age on October 1, 1917. Prizes: First, \$8; second, \$6; third, \$4; three fourths, \$2; \$1 honorable mention for twenty-eight pigs.

Stories. Prizes given by Mr. Cross. For the best practical story of 200 to 500 words on pig raising. Stories should be sent to Junior Extension Service, Am-

herst, before September 27. Prizes: First, \$10; second, \$7; third, \$5; fourth, \$3. For the greatest gain in four months. Must be a spring pig. Prizes given by Mr. Cross. Prizes: First, \$10; second, \$7; third, \$5; fourth, \$3.

Model Equipment. For the most practical house and equipment for housing and feeding swine. Size of model to be not less than 3 by 5 feet. Prizes given by Mr. Cross. Prizes: First, \$25; second, \$15; third, \$10.

Judge Contest for Club Members. Individuals will place two classes of four animals each with brief reasons. Prizes: First, \$10; second, \$8; third, \$6; fourth, \$4; fifth, \$2.

The Bellingham committee has offered a prize of \$3 to the pig club member who first pays off the pig club note with money received from vegetable products sold from his or her own garden. The announcement of the winner has not yet been made, but some one's note should be paid off very soon.

The Bellingham local exhibit comes September 21.

The Weymouth Gazette has given over a column a week to the interest of children's gardening and club work.

Officers of the Weymouth Trust Company are offering \$25 in cash to those members of the Weymouth Pig Club who make the best showing in the State contest. These prizes will be awarded in October.

Mr. V. A. Rice, State Pig Club Agent, spent four days in Norfolk County last month looking at the pigs and giving talks on feeding and caring for the pigs from now until the close of the contest.

Pig Club members in Bellingham, Stoughton, Weymouth and Cohasset have been holding meetings to discuss and practice judging of pigs,—in preparation for show time.

WANTED

Married man on dairy farm. Good pay, nice house, garden, and milk furnished. Apply to Albert Aldrich, Woonsocket, R. I., R. F. D.

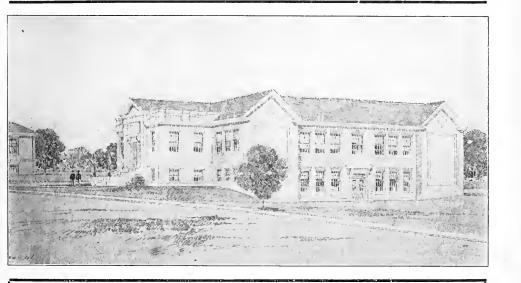
NORFOLK COUNTY AGRICULTURAL AND HOME MAKING BULLETIN

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SCHOOL STAFF

FREDERIC W. KINGMAN	Director
LAURENCE A. BEVAN	Market Gardening
CAREY W. CARRICK	.Poultry Husbandry
HORACE C. FUNK	.Animal Husbandry
CHARLES W. KEMP	.Weymouth Dept.
MARY E. SHEPARD	Sec'y and Accountant

FARM BUREAU DEPARTMENT

WILLARD A. MUNSON	
STELLA S. SIMONDS	
JOHN T. DIZERBoys' and Girls' Club Leader	r



DEDICATION EXERCISES

The new Norfolk County Agricultural School will be dedicated Thursday, October 11th. An inspiring program is assured. Governor McCall is expected to be present to extend the greetings of the Commonwealth. Addresses will be made by John D. Willard, Secretary of the Massachusetts Public Safety Committee on Food Production; Rufus W. Stimson, Agricultural Agent, State Board of Education; and Miss Sarah L. Arnold, Dean of Simmons College.

The exercises will commence at 2 P. M.

Trains leave Boston at 10 A. M. and 12:10 P. M. for Plimptonville (station nearest the school). Returning leave Plimptonville at 5:23 P. M. The public is cordially invited to attend.

ANNOUNCEMENTS

On Saturday, September 15, former students, and those expecting to enter this fall spent the day at the Agricultural School. The boys enjoyed the sports and refreshments, and became familiar with the new building and acquainted with each other.

Farmers' Bulletin 879, "Home Storage of Vegetables", is a recent publication of the United States Department of Agriculture which will interest those who are going to store vegetables.

Farmers Should Advertise

That the producer may establish himself with the consumer, he should take every opportunity offered and adopt methods of advertising which will make his name known as a grower and seller of whatever crops he offers for sale. At the numerous community markets which have been in operation, this season, a chance to advertise has been offered which has been largely neglected. Whenever a store or business is established the first thing the owner does is to erect a sign, giving his name and the business. If the farmer selling produce at the community markets would post his name above the goods (Fig. I) he is selling, the customer would then know

JOHN SMITH NORWOOD, MASS.

Telephone Connection
PRODUCER OF FRUITS AND VEGETABLES

(Fig. I)

of whom he was buying goods, and who to look for on the next market day. He would also be able to tell his neighbors and friends where he had made satisfactory purchases.

Further than this, there are possibilities of informing customers by the use of printed cards or posters what the grower will have for sale on the next market day, and what he will be able to supply in large quantities for winter use. Undoubtedly there are consumers who would like to obtain vegetables to store if they were informed that the farmer was in a position to fill such orders at attractive prices. A sign similar to (Fig. II) displayed at the selling stand in the community market, might increase sales to a large extent.

JOHN SMITH

Telephone Connection

GROWER OF FRUITS AND VEGETABLES

ORDERS TAKEN FOR LARGE OR SMALL QUANTITIES

POTATOES
CARROTS
PARSNIPS
PARSNIPS
APPLES

QUINCY, MASS.

QUINCY, MASS.

PERS.

(Fig. II)

In nearly every town or city where community markets have been installed this season, they have been successful from both the producers' and consumers' standpoint, and in many places they will be carried on next year and years to follow. A great deal of the future success of these markets will depend upon the grower. The consumer has shown his willingness to patronize them, and if the farmer will continue to put on sale flesh, good quality produce at prices which will allow the purchaser to benefit from the inconvenience of coming to the market and carrying his vegetables home in a basket, and in many cases paying one or two carfares, then the market will continue to be successful.

The producer who looks ahead to better his business will realize the opportunity that is offered him to make more for the labor he puts into raising his farm products, and the consumer will further realize the advantages that are to be had in purchasing good fresh vegetables at fair

prices.

Eastern States Premium Lists Ready

Almost \$50,000 is offered in premiums and prizes in the various departments at the Eastern States Exposition and Dairy Show, which will be held from October 12 to 20 at Springfield, Mass. The premium lists are now ready for distribution and may be had by writing to the general manager, John C. Simpson.

That this will be an all-purpose show is indicated by the number of departments. These include breeding and show horses, six breeds of dairy cattle, three breeds of beef cattle and all the well known breeds of sheep and swine. This year's Eastern Berkshire Congress Show will be held as

a part of the exposition.

The vegetable show will be the First National Exhibition of the Vegetable Growers' Association of America, and will be assembled from all parts of this country and Canada. Fruits will have an equally large and important display. The Boys' and Girls' Club contests and show are expected to exceed those of last year. Sixty boys and girls who win places on their state teams will have their traveling and living expenses for six days paid by the exposition.

Horse races for five days and auto races three days will be among the entertainment features. The horse show will be the evening attraction the entire week of October 15. Another show of importance will be that of the auto makers and dealers, who are planning to make their first ex-

hibition of the 1918 cars.

W. A. PARCELLE.

Springfield, Mass.

POULTRY DEPARTMENT

Culling the Poultry Flock

At this time of the year the culling of the poultry flock should be completed. With the present prices of grain, one can ill afford to carry unprofitable hens through the winter season. Hens that are laying at present and have not begun to molt should be saved another year. Those that rolt latest should be marked with leg bands and used for breeders since they are usually the highest producers. Another good sign for a high producer is very pale shanks at this season of the year, showing that the color has been "laid out." This applies only to yellow legged varieties. This test used along with the time of molt should give a rather good index to the performance of the bird.

Colds and Roup

This is the season at which roup and colds are most prevalent among poutry. The cool nights have a devitalizing effect or the birds making them more susceptible to disease. A good preventive is to have the houses dry and well ventilated, but free from drafts. A house tight on all sides but the front with a dry floor will usually give the desired condition. It is a mistake to close up the front of the house since this will make a damp atmosphere within. Fowls give off a great deal of surplus moisture by breathing, and unless their house is well ventilated the air becomes saturated with moisture, making breathing more difficult thereby weakening the systems of the birds. It is not cold air that injures birds, but cold Experiments in Canada, a much colder climate than this, have damp air. thoroughly demonstrated that the open front gives best results in both egg production and healthfulness. If the front is kept open now and the birds allowed to become accustomed to the cold, they will thrive much better during the winter with an open front than closed up tightly. Some judgment must be used in the amount of open front to give. This will be less in a very narrow house than in a very deep house, since in the deep house the birds are farther away from the exposure and can stand much more Windows covered with muslin do not make an "open front" house, since the cloth soon becomes clogged with dust and the air will not penetrate. If anything is to be used it is better to use burlap, since it is more porous and does not clog with dust so easily. We used this over the openings of a small house at the school last year on zero and stormy nights. Other nights, the opening was clear. The production for a flock of 24 averaged over 50 per cent. for December, January and February, and there was not a case of roup or a cold during the whole period.

Prevention of roup is much better than a cure. The following, taken from "Diseases of Poultry," by Pearl, Surface and Curtis, may give satisfaction: "A method of treatment which gives excellent results, especially in the early stages of roup, is the use of one to two per cent, of permanganate of potash. Fowls are treated in the following manner: The nostrils are pressed together between thumb and forefinger in the direction of the beak, two or three times. Pressure should also be applied between nostrils and eyes in an upward direction. This massage helps to loosen The bird's head is then plunged the discharge in the nostrils and eyes. into the solution of permanganate of potash for twenty or thirty seconds; in fact, the head may be kept under the solution as long as the birds can tolerate it. The solution is thus distributed through the nostrils and other canals and has an astringent and slight disinfecting action. treatment should be given twice a day and continued until all symptons have disappeared. The birds which are being treated should be kept in a dry, warm, well ventilated room with good nourishing food.

water should be frequently changed."

The Small Flock

In England, it is said that the keeping of small flocks of poultry is doing much to help solve the high cost of living. There are very few families who do not have sufficient waste products to help feed a small flock of hens. Many are predicting high prices for eggs this winter, and if one can produce a few at slight cost it will add a valuable food article to the table otherwise not available.

A flock of 15 pullets may be housed in a house ten feet long and eight feet wide. If plenty of litter is provided in the form of leaves or straw, little or no yard need be provided. These birds would not be desirable for

breeding purposes when thus confined.

In buying pullets, care should be taken to secure birds well matured. It would not usually be advisable to buy pullets hatched later than May first, since they could not be expected to lay very soon. There are some strains, however, which mature early.

We have on hand several circulars from the Massachusetts Agricultural College which tell about the home flock and we will be glad to send

these to any who are interested.

HOME MAKING DEPARTMENT

Using the Green Tomatoes

Our anticipation for a large yield of red tomatoes this year has been somewhat blighted in many sections by the unusually early and heavy frosts. This has left us with a quantity of green tomatoes which we must plan to use, for waste of any food this year is unpardonable.

Many kinds of pickles may be made from green tomatoes and a variety of relishes will help in making our food more appetizing during

the winter months when our appetites need whetting.

Piccalilli

1 pk. green tomatoes

1 green pepper 1 t

1 red pepper

1 cup grated horse radish 1 tablespoon each cinnamon, clove

and allspice 2 cups sugar

4 onions ½ cup white mustard seed

Wash the tomatoes and remove the stem ends, remove the stems and the seeds from the peppers. Chop the tomatoes, peppers and onions, sprinkle over all one cup of salt and let stand over night. Mix thoroughly and drain off all the juice. Place in a kettle, add the mustard seed, grated horse radish, and vinegar to make juicy. Cook slowly one hour, then add cinnamon, clove, and allspice, which have been tied loosely in a muslin bag, and the sugar. Cook until the tomato is tender. Add vinegar occasionally as needed. Remove the spice bag. Place while hot in sterilized jars. Fill jar to overflowing. Dip the rubber in hot water, place on the jar, and seal tightly.

Chow-chow-

1 gallon vinegar

1 gallon chopped cabbage

½ gallon chopped green tomatoes

1 dozen large onions chopped

1 dozen sweet green bell peppers chopped

½ dozen sweet red bell peppers chopped 2 lbs. sugar

1/4 cup ground mustard

3 tablespoons white mustard seed

2 tablespoons celery seed 1 tablespoon ground ginger

3 teaspoons ground clove and

3 teaspoons ground cinnamon tied in a muslin bag

Sprinkle the chopped vegetables with one cup of salt and let stand Press the brine from them. Bring the vinegar with the over night. other ingredients to a boil, add the chopped ingredients and boil slowly for half an hour, or until the materials are soft. Remove the spice bag and seal as directed in the receipt for piccalilli.

Sliced Green Tomato Pickle

1 gallon sliced green tomatoes

6 large onions sliced

1 teaspoon ground black pepper

1 small red pepper 2 tablespoons white mustard seed 45 cup celery seed

2 lbs. brown sugar

1 tablespoon allspice and

1 tablespoon clove tied

loosely in a muslin bag

Sprinkle the sliced tomatoes and onions with salt. Let stand four hours in separate bowls. Then soak in cold water four hours. well, pressing out the water. Put in a porcelain kettle, mixing the mustard and celery seed, sugar, and pepper thoroughly with the sliced ingredients. Cover with good vinegar to which the spices have been added. Boil slowly until quite soft and tender. This pickle is not good if removed from the fire before the tomatoes are tender. Seal as directed in receipt for piccalilli.

Mock Mince Meat

A very satisfactory mock mince meat is made by using green tomatoes as the foundation. The tomato replaces the meat and makes a much less expensive pie filling. The filling may be made in quantities and canned for use later in the season,

Drain. One peck of green tomatoes chopped fine. Add four quarts of boiling water, let stand a few minutes, and drain. Add boiling water a second time and drain. Add four pounds brown sugar, half a cup of finely chopped suet, two pounds of chopped raisins, two tablespoons of salt, two cups of vinegar. Cook until the color of the raisins. After it is cooked add two tablespoons of cinnamon, two tablespoons of clove, and one tablespoon of grated nutmeg. Pour while hot into sterilized jars. Partially seal, and sterilize ten minutes in a hot water bath outfit. Remove and seal.

PEACHES IN OUR WINTER MENUS

We are fortunate this year in having an abundant peach crop. must take advantage of this fact by using as many peaches as possible daring their season and saving them in a variety of ways for later use.

Peaches are usually liked by all members of the family. appetizing flavor gives palatability and variety to the diet, and as a flavor they are very desirable served in other foods, as in puddings, sauces, etc. Peaches possess more value as a food than is usually accredited to them. Their greatest value lies in the acids and mineral salts which they contain, both being valuable factors in keeping the body in working order. The sugar content of the peach makes it possible to classify it among the energy giving foods. Ripe peaches are one of the most easily digested fruits, but if for any reason they cannot be eaten in the raw state, any difficulty of this kind may be removed by cooking. A variety of ways for preserving peaches follows:

Peaches Canned by the Cold Pack Method

Select a firm peach, one that is not over-ripe. The peaches may be canned whole, in halves, or sliced. If they are to be canned in halves or slices, cut through the crease with a knife, take the peach in the two hands, turn the hands in the opposite directions and wring the peaches in halves. Tie the peaches in a piece of cheesecloth, scald by Remove the stone. dipping in boiling water for one or two minutes, the length of time depending upon the ripeness of the peach. Remove from the hot water. plunge in cold water to thoroughly chill. Remove and pull off the skins which should slip off readily. Pack the peaches in a clean jar with the pit side down, packing the fruit in as tightly as possible. Fill the jar with a syrup which may be made by bringing sugar and water to the boil-A heavy syrup may be made by using three parts of sugar to two parts of water; a medium syrup is made by using equal parts of sugar Wash the rubber ring carefully, put the rubber and cap in and water. position and partially tighten. Place the jar on a rack in a kettle of hot water, having the water cover the jar by one inch. When the water reaches the boiling point, allow the peaches to cook 16 minutes. the jar, tighten the cover and invert to cool.

Spiced Peaches

4 qts. peaches 2 lbs. brown sugar 1 oz. stick cinnamon

1 pt. vinegar

Boil sugar, vinegar and cinnamon for 20 minutes. Remove the skins from the peaches, stick each peach with four cloves, put into syrup and cook until soft, cooking half of the peaches at a time. Pack in sterilized jars; fill the jar full and seal tightly.

Peach Butter

Remove the skin from the peaches as directed in preparing peaches for Place the peeled fruit in a kettle with just enough water to start the cooking. The fruit is cooked until it falls to pieces. sulting pulpy mass is rubbed through a colander or sieve, then re-placed over the fire and cooked with constant stirring until it begins to thicken which will be shown by the spattering of the boiling product. cooking process will require two or three hours. The sugar should be added when the butter has become somewhat thickened, and cooking should not be continued longer than five to ten minutes after adding the The amount of sugar will vary somewhat, but six to ten pounds per bushel should give a sufficiently sweet product. If spiced butter is desired, add the spice just before removing from the fire. Three tablespoons of ground cinnamon and two tablespoons of ground clove may be added to make a spiced peach butter. Pour the hot butter into clean sterilized jars and seal. A bushel of peaches will make three to four gallons of butter.

Soft windfall peaches may be made into peach butter which will make an excellent substitute for jams, jellies, and preserves,

Dried Peaches

Peaches may be very satisfactorily dried by removing the skins, slicing into pieces an eighth to a quarter of an inch thick and drying according to the directions given in the August bulletin.

FALL CARE OF THE HOME GARDEN

A little attention to clean farming and garden methods this fall will greatly reduce injury by insect pests next season. Clean culture means the doing away with all accumulations, the destruction of all waste plant material, fruits, vines, vegetables and other refuse about the garden. Material which cannot be fed to live stock should be raked up and burned as soon after harvest tine as possible. Many injurious insects pass the winter under the protection of just such material, and are ready and waiting on the job the next spring for another season of feasting and plenty. Clean up around the garden as well as in it. The potato and corn stalk borer has caused endless destruction to corn and potato plants in Massachusetts the past summer. The stalk borer passes the winter in the egg stage, these eggs being laid in the fall by the parent moth upon potato stalks, weeds, grasses and similar materials. Destruction of such material and the practice of clean culture this fall will destroy these eggs and prevent injury by this insect next season.

Cut worms, white grubs, wire worms, eucumber, asparagus and potato beetles pass the winter under the protection of accumulations about gardens or in the ground. If this material is not allowed to accumulate, the insects are less likely to survive the winter. This fall it would be a good plan to burn over grass lands surrounding gardens or land which is to be planted next season. Plow all gardens and fields to be planted next season as late as possible this fall, and harrow the land early next spring. This will destroy many of the insects wintering in the ground.

. Fall plowing of sod land will help break up the turf, and the garden

will be much more easily cultivated next season.

Rye as a Cover Crop

With manure likely to be as scarce next year as it has been this season, it will pay to grow a cover crop this fall. The land is benefited in several ways. More humus is added to the soil, which helps maintain fertility. Washing of the land is prevented, and there is no loss of plant

food by leaching.

The standard cover crop in New England is rye. It can be sown as late as October 15, and still come through the winter. It makes a heavy fall and spring growth and furnishes a large quantity of humus to be turned under in the spring. The rye seed is comparatively cheap in contrast with vetch or clover seed. Broadcast the rye at the rate of a bushel and a half to the acre or a little less than a pound to a square rod. Rye will decay more quickly and more easily if plowed under when about ten or fifteen inches tall.

The Potato Situation

The potato growers are going to take advantage of the recent ruling of the Federal Reserve Board that potatoes may be used as collateral for ninety day loans. New England producers face the problem of handling 45,000,000 bushels of potatoes, about one tenth of the total crop, without causing an overstocked market and consequent drop in price. The Market Growers' Journal gives the following concise report of a conference held recently in Boston, where a plan of action was mapped out:

1. Marketing of only one third of the crop at harvest time; another third in ninety days, or placing in storage and distributing as the demand affords opportunity; the remaining third to be stored and marketed throughout the year.

 All potatoes to be graded with care. It was recommended that a wire screen grader be used, 1% inch mesh for oblong tubers and 2 inch mesh for round ones: graded stock then to be placed in good two bushel sacks, 115 pounds to the sack; then sew sacks tightly.

3. Increasing load in each railroad car from normal 30,000 to 45,000 pounds. That these cars be unloaded within 24 to 36

hours of their arrival at destination.

t. That municipalities and other bodies provide storage for as large quantities as possible at the peak of the harvest.

A storage house such as will conform to the requirements laid down by the Federal Reserve Board does not call for a specially constructed house. There are innumerable buildings which if properly cleaned, provided with ventilation, and managed so as to maintain temperature of about 35 degrees, will answer admirably for the purpose.

Care of Seed Corn

In order to secure good seed corn, it is absolutely necessary to take proper care of it immediately after the ears are gathered. The two essentials in preserving corn are drying the seed and keeping it dry. If the seed is moist when freezing weather comes, the germinating power of the kernel will be either destroyed or weakened. Dry, freezing weather will not injure the vitality. It is necessary to dry the corn as quickly as possible, and this year it might be desirable to do this with artificial heat, taking care to have the room well ventilated.

In placing the corn for drying or storing, the ears must be so arranged that the air can circulate freely around each one. There are a number of inexpensive methods of doing this. The following are a few of these methods: Hanging it up by the husks that have been left on the ears; hanging it up with strings; putting it in racks so the air can circulate through; driving nails the proper distances apart into a board and sticking the ears on the projecting ends. Any of these methods are satisfactory

providing the air can circulate around each ear.

BUSH FRUITS NEED CARE

During the late fall, winter and early spring, small fruits need protection from drying winds, snow and severe cold weather. They must be thinned and pruned before the growing season begins in the spring.

Currants and Gooseberries

Both these fruits will stand the low temperature of this climate without injury, and need no protection against cold and wind. Sometimes, however, when unusually heavy snow storms occur, branches of the currant are broken down by the weight of snow and sleet. This danger may be avoided by drawing the branches together and tying them with coarse string. The tying may be done at any time after the leaves fall.

This period between the falling of the leaves in autumn and the starting of growth in the spring is the season in which currants and gooseberries are pruned. The ideal currant bush has six to eight main branches while the gooseberry has eight to eleven. None of these branches should be over three years old. Two or three of the main

branches of the currant and three or four main branches of the gooseberry should be removed each season, and a like number of the most vigorous canes of the current season's growth left to take their place. All other young canes and all canes bent to or near the ground should be removed. If this system is followed each year after the bushes reach the age of three years, pruning will be relatively simple and the plantation will be kept in good condition.

Raspberries and Backberries

Raspberries and blackberries need winter protection in localities where low temperatures and severe winds prevail, especially where the snow covering is light. Certain varieties need protection more than The tender varieties will need to be entirely covered with soil, while the more hardy will need only to be bent over and held down by This should be done as late as possible, yet before the covering the tips. Some of the soil should be removed from one side of ground is frozen. the row, with either a hoe or plow, the canes inclined to that side until they are in a horizontal position, and then entirely covered with soil to a depth of two or three inches. In practice, the canes are bent over so that the top is alongside the next hill, some soil thrown over the ends of the canes in order to hold then down, and the remaining parts covered by use of a spade or by throwing a shallow furrow over the canes with a plow. Uncovering should be done in the spring after all danger of hard freezing is past and before the buds start.

When the snow fall is heavy throughout the winter, it may cover the canes sufficiently to afford all the protection that is needed. To be adequately protected by the snow, the canes should be bent over and held down by placing a few clods of earth on the tips, or sometimes forked

sticks are used to pin them to the ground.

Usually no pruning is given either the raspberry or blackberry just before or during the winter. When the canes are to be protected with soil, however, all the weaker canes, as well as stronger ones not needed for the crop the following season, should be removed. This thinning out of the canes will reduce the cost of covering. In the spring if the canes are long and are not to be supported by stakes or a trellis, the ends should be cut back. If cut back to a height of three feet, the canes should be able to support their crop, keeping the berries away from the ground. The side branches of the blackberries are usually pruned back in early spring and the length at which the laterals should be left depends on the habit of the variety.

Winter Protection of Strawberries

In this locality, autumn or early winter is the season in which the strawberry fields should be covered with a mulch, partly to protect the plants from continual freezing and thawing which occurs in many sections, partly to conserve moisture and keep down weeds during the following spring and during the fruiting season, and partly to keep the berries from contact with the soil when they ripen. This mulch may consist of some kind of straw or hay, but it should be free from weed seed. Wheat, rye, oat and buckwheat straw, long leaf pine needles, meadow hay, marsh hay and other materials are frequently used for this purpose. The mulch should be placed on the berry field after the ground freezes and before it is covered with snow. If available, sufficient material to make the depth of the mulch when it settles from two to three inches should be used.

Stable manure, though frequently used, is not always satisfactory. In some sections it causes a vigorous leaf growth the following spring and

actually lessens the yield of berries. If either the stable manure or the straw contains weed seed, it may infest the berry field with weeds to an extent which will decrease the yield and cause much expense in cleaning. When stable manure is applied, the solid portion as far as possible should be put between the rows, and that part containing more straw placed over the row. In the spring, before the plants start growth, sufficient straw should be removed from the rows to allow the plants to grow through the mulch. This straw may be thrown into the space between the rows. Where the ground is weedy, it will often be necessary to rake the mulch upon the rows of plants and cultivate the field. The mulch is then returned to the middles between the rows of plants to be left until after picking season.

CLUB WORK

BOYS AND GIRLS LIKE TO EXHIBIT

If there is anything that appeals to a boy or a girl, it is doing something for himself or herself. The result of the work and effort expended is the thing which arouses the pride of the owner. To show this result is the opportunity desired and the reward most appreciated by a young person who has grown a good vegetable in the garden or a good pig during the summer vacation.

Throughout our county, many boys and girls have responded to the call, and have cultivated gardens, cared for pigs, and canned many quarts of fruits and vegetables. They are now being given the opportunity in many communities to display their products, competing with one another to see who has done the best.

When a youngster wins a prize, even though it is only one of merit, it gives him a new pride in his work. He goes home feeling that life is something more than living from day to day, and that the work he has done is recognized as being worth while. The chance to display his products encourages him to increase his efforts, for he realizes that the community has recognized him as a necessary part of it, and if he is unusually successful and receives the awards which mark his products as being of the highest quality, he finds out while still young, that he has a gift and can continue to develop it as his specialty in future work. The boy or girl who finds his or her place while still in school, has the opportunity of reaching success long before the one who remains undecided until several vocations have been tried after finishing the elementary education.

The winning of a blue ribbon makes a youngster feel like the adult who is able to excel in some accomplishment. The lover of horses likes to be recognized as owning the best one in his community; the owner of an automobile will exert his efforts in order to win the blue ribbon for the one being most artistically decorated in a parade. So, like the adult, the youngster when winning has a new standard set, up to which he takes pride in living. If he is made of real true foundation character, he will live up to that standard in all his activities, and he becomes a leader for having won a prize.

In order to retain that leadership, he must use his skill still further the next year, for he realizes that his competitors who lost to him are going to strive and work harder to win back what they lost when the next opportunity comes. Being the loser often tests the character and does more good than to win, for the person who wins may neglect to find out why the prize was placed upon his products, but the boy or girl who takes the pains to find out the reasons for the failure to win and the reasons why the

winner was successful will come back the next year with the best exhibits

and be successful year after year.

Some good examples of improving the quality are being shown in the boys' and girls' exhibitions now taking place in many towns. The quality of the products is growing better and better with each succeeding year the exhibitions are being given. This testifies to the fact that winners and losers are studying what makes up the quality of a prize winning display.

WEYMOUTH WILLING WORKERS By Sarah E. Brassill, Club Leader

There are 450 of them this year. They include gardeners, canning club members, pig club members, helpers in the family garden, and workers on local market gardens.

The smallest garden listed consisted of four hills of Kentucky Wonder beans, the property of a six year old boy. The most ambitious garden covered four acres. The most successful one was one twentieth of an acre.

Eight towns in Norfolk County helped toward the success of the children's department at Weymouth Fair. The management welcomed this cooperation and their competition. It is more fun to win and less disappointment to lose when one can learn from the display. The Weymouth Agricultural and Industrial Society provided a big tent. The children's display filled it competely. The display included products of the Weymouth home and school gardens, the displays of the members of the Market Garden clubs and Potato clubs, cooking, serving, household arts, flowers, and the work of the Weymouth Canning clubs. There are nine of these clubs that have been at work during the summer under the leadership of teachers was The Athens School club was in charge of volunteered for the work. The Bates School was led by Miss Catherine Fogarty and Miss Dingwall. Helen Reicey. At the Hunt School two clubs were taught by Miss Randall and Miss Dutton. The James Humphrey School had three clubs—one of boys under Miss Canterbury, Miss Conroy and Miss Reid. At the Pratt School, Mrs. McFawn took charge, and Miss Hanley taught the Shaw School club.

At the Fair, representatives of these clubs demonstrated the cold pack method, using for the work an electric range installed by the Weymouth Electric Light and Power Company. Boy Scout Troop 2, of East Weymouth,

went on duty during the fair, to guard the tent and its contents.

Outside on the grounds there had been erected 50 new pens for the pigs. A special appropriation for premiums to club members brought out the best pigs we could find in the town and the country. By the way, the club pigs all outclassed the few shown by non-members.

The committee in charge included Miss Brassill, Mrs. Linnehan, Mr. Dizer and Mr. Kemp. The judges were the same five selected from different sections of the town who served last year, umpired this time by Mr. Munson.

PRIZE WINNERS AT THE WEYMOUTH FAIR Market Garden Club

Francis Sullivan, Dedham, 1st, \$10 Chester Gaskill, Bellingham, 2d, \$8 Elliot Smith, W. Stoughton, 3d, \$6 George Lundquist, Stoughton, 4th, \$4 John Jennings, So. Weymouth, 5th, \$2 Mabel D. Croston, So. Bellingham, 6th, \$1 Frank Randall, Stoughton, 6th, \$1

Potato Club

John Jennings, So. Weymouth, 1st, \$5 Frank Randall, Stoughton, 2d, \$3 Leo Greenberg, W. Medway, 3d, \$2 Francis Sullivan, Dedham, 4th, \$1 Israel Ucran, Medway, 5th, 50c William Blackney, North Weymouth, 5th, 50c Chester Gaskill, Bellingham, 5th, 50c Willard Ellis, Dedham, 5th, 50c

Spring Pigs

Edward Smith, E. Weymouth, 1st, \$5 Edith Green, Weymouth, 2d, \$3 George Wayland, So. Weymouth, 3d, \$2 William Wayland, So. Weymouth, 4th, \$1 Thomas Chisholm, So. Weymouth, 5th, \$1 Elliot Smith, W. Stoughton, 6th, \$1 George Valine, Cohasset, 7th, \$1 Thomas Grassie, Cohasset, 8th, \$1

Pigs Six Months to One Year

Lena Del Prate, So. Weymouth, 1st \$5 Francis Huff, So. Weymouth, 2d, \$3 Joseph Dutton, Weymouth, 3d, \$1

Brood Sows

Francis Huff, So. Weymouth, 1st, \$5 Joseph Dutton, Weymouth, 2d, \$3







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NORFOLK COUNTY AGRICULTURAL AND HOME MAKING BULLETIN

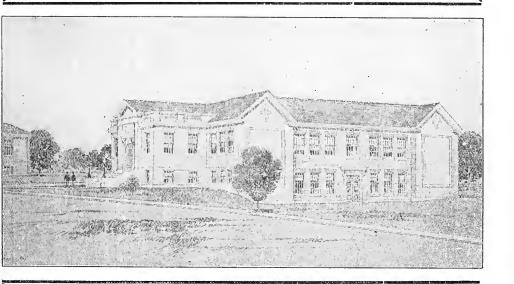
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PUBLISHED BY THE NORFOLK AGRICULTURAL SCHOOL, WALPOLE, MASS.

SCHOOL STAFF

FREDERIC W. KINGMAN	
LAURENCE A. BEVAN	.Market Gardening
CAREY W. CARRICK	.Poultry Husbandry
HORACE C. FUNK	.Animal Husbandry
CHARLES W. KEMP	.Weymouth Dept.
MARY E. SHEPARD	Sec'y and Accountant

FARM BUREAU DEPARTMENT

WILLARD A. MUNSON	.County Agricultural Agent
STELLA S. SIMONDS	Home Demonstration Agent
JOHN T. DIZER	.Boys' and Girls' Club Leader



DEDICATION EXERCISES

The Dedication Exercises of the Norfolk County Agricultural School were held in the arena, on Thursday, October 11. In spite of very stormy weather, about 350 people were present, representing all parts of the county. An orchestra from Franklin, made up largely of former high school students, added much to the pleasure of the occasion, by its selections during the noon hour as well as by its contribution to the formal program of dedication.

The invocation was by Rev. Joseph F. McGlinchey, D. D., Boston.

Mr. Evan F. Richardson, president of the Board of Trustees, presided and gave a short account of the establishment and beginnings of the school. The keys of the building were presented by the contractor, Mr.

Frank P. Dillon, and the architect, Mr. William Chapman.

A very interesting address was delivered by Mr. Rufus W. Stimson, representing the State Board of Education. He told of the need for this type of school and its function in the community, emphasizing the relation between the school with its Farm Bureau Department which he called a "short-distance" agent, the State Agricultural College which employs a comparatively small number of specialists ready to help out when difficult problems arise, and the Federal expert in Washington, who is the The long distance man cannot serve the individual long-distance agent. farm and community as a school of this kind can do. Mr. Stimson explained that the State Board of Education does not approve of the dormitory system in an agricultural school, because they want the boy to take home each day something which he has learned and apply it on his own farm, so that it may be of real practical value to him. It is not planned to operate a large dairy at the school, for there are those in the vicinity which can be visited, and the students will profit most from working out their home projects on their own farms under the direction The short distance boy is as important as the short of the instructor. One of Mr. Stimson's arguments for the need of this distance instructor. kind of school was to give the boy who is interested in agriculture as fair a chance as the boy who wishes to go into the professions or trades, for the problems to be grappled with in agriculture are just as difficult as any encountered by the scientist.

Miss Comstock, the State Leader in Home Economics, connected with the Extension Service of the Massachusetts Agricultural College, spoke of the needs and opportunities for a home-making course for girls in the Miss Comstock said that a farm in order to be a agricultural school. success must have a contented housewife, and that the girls need to be trained for the work in the farm home. It is as essential to keep the girls from being lured by the attractions of the city as to keep the boys on the farms. Foods, clothing, hygiene, recreation, exercise, shelter, ventilation, house planning, household management are some of the subjects which would be studied in a course of this kind; some of the cultural training would be as essential to enable the girl to elevate the work of the household above the plane of drudgery and to keep herself and her family A home-making department in a school like this, as a short distance agent, would meet the needs of the girls in just the same way as the agricultural school is now meeting the needs of the boys, and the knowledge gained could be daily applied in the individual homes, just as

the boys make practical applications on the farms.

Mr. Kingman spoke briefly of the work of the school so far, saying that he felt the staff was not yet to be congratulated upon the success

of the school, but only upon a successful beginning. He urged the people to help in making the school well known throughout the county, that it might serve a larger number of young men interested in agriculture. The ultimate success of the school can best be brought about by a sympathetic relationship between its officers of administration and the individual farms in the county, and a representative body such as was present at these exercises should be able to help a great deal on this line. Mr. Kingman extended a cordial invitation to all present to visit the school in session and to keep in close touch with its work.

A patriotic tone was given to the exercises in the address of Honorable Guy A. Ham, who is one of the Trustees of the School. He mentioned the inportance of agriculture under the present conditions in our country, and then went on to speak of the great struggle which is so near to us all. Great sacrifices have always been necessary before advances have been made in the standards of civilization, and Mr. Ham expressed confidence that the present sacrifices must result in a victory for democracy. He

closed his address by quoting the poem "Flag of the Free."

Mr. James C. Poor, Director of the Essex County Agricultural School, told a little about the beginning and growth of the school at Hathorne, Massachusetts. He spoke especially to the boys, telling them of the opportunities in agriculture and the great blessing of joy in one's work.

The exercises were closed by the singing of "America" by the audience.

MEETING OF NORFOLK POMONA GRANGE

On Friday, October 19th, the Norfolk Pomona Grange held its regular meeting at Walpole, and on this occasion were the guests of the teachers and students of the Agricultural School. More than one hundred patrons from Dedham, Franklin, Foxboro, Millis, Medfield, Medway, Norfolk, Norwood. Plainville, Westwood, Stoughton, Wellesley, and Walpole partook of an excellent dinner provided by Caterer T. F. Holman of Norwood.

The afternoon attendance was approximately 150. The program was

in charge of Director Kingman, and was as follows:

A. M.

10:30 to 12 Inspection of Farm and Visitation of Classes.

P. M.

Cornet Solo-Edward J. Killion.

Talk by Mr. C. W. Carrick of Poultry Department.

Soil Testing Experiment conducted by Mr. Andrew N. Schwab, Instructor in Market Gardening.

Milk Testing, conducted by Mr. Horace C. Funk, Instructor in Animal Husbandry.

Recitation-Miss Ruth Cohenno.

Cornet Solo-Mr. Killion.

Corn Testing-Mr. Schwab.

Talk by Mr. W. A. Munson, County Agricultural Agent.

Mr. Munson's address was an account of the Eastern States Exposition. d.

NATIONAL FARM LOAN ASSOCIATION TO BE ORGANIZED IN NORFOLK COUNTY

A meeting has been arranged for Friday, November 16, 1917, at 1:30 P. M., at the Norfolk County Agricultural School, Walpole, Massachusetts. All farmers of Norfolk County who are interested in borrowing money through the Federal Land Bank should be present at this meeting.

Mr. E. H. Forbush, Field Organizer for the Bank, will be present to explain the system in detail and assist in forming a Loan Association for Norfolk County. Mr. Forbush will tell how a man may borrow to purchase farm property, to pay off existing mortgages, to buy stock, fertilizers, and equipment, to erect buildings, and make improvements, to pay existing debts, and purchase shares in the National Farm Loan Association.

Mr. Forbush will point out the facts in detail that all loans are made on first mortgages, that the interest rate is 5 per cent., that by making uniform annual or semi-annual payments amounting to six per cent. on the principal, both interest and principal are paid and the mortgage is wiped out at the end of 36 years, the period for which all loans are being made. He will explain how a man can make his regular payments during the first five years, and after that period he may pay the whole or any portion of the loan on any payment date. In this way, he knows exactly what he must do for 36 years, and he is at liberty to do as much more as he is able.

Letters of inquiry from fifty-three different people have been received about borrowing money through the Federal Land Bank. This meeting is due to the interest manifested in these inquiries and to give all the farmers of Norfolk County an opportunity to learn the advantages of borrowing money through a Farm Loan Association.

HOME MAKING DEPARTMENT Two Meatless Days A Week

The last request which Mr. H. B. Endicott, State Food Administrator, has made of the women of Massachusetts is to set aside a second day in the week when no meat shall be served on their tables. Tuesday and Friday are the suggested days and fish has been recommended to replace meat in our menus on these two days. There are two distinct reasons why we are asked to economize in the use of meat at the present Meat is unquestionably the most expensive article in our diet. Added to this, we have a decided scarcity of meat which makes it almost prohibitive for us in our homes, as it is necessary for us to save our overtaxed supply for the men who are fighting and who are dependent upon their daily ration of meat. Our meat exports to our allies are now almost three times what they were before the war. If we will save one ounce of meat per person per day, we can send our allies what they need.

In order that we may make an intelligent substitution for meat in our menus, it is necessary for us to have some understanding of the chemical composition of foods. An ideal diet must contain foods that will supply in proper amounts substances which the body requires for building and repairing tissues, for furnishing heat and energy, and for maintaining normal body functions.

The foods that are most essential in building the body tissues are the protein foods, and we find them as a class to be the most expensive. Meat has always been considered one of the most desirable protein foods, because of its pleasing flavor, and from constant use we have grown to believe it to be a necessity. Other sources of protein are milk, eggs, cheese, fish, nuts, dried peas and beans, and cereal. Recent investigations, however, have shown some forms of protein to be of more value to the

body than others. An experiment in feeding an animal on a sufficient amount of protein obtained from the grains, corn, wheat, and oats, proved that the animal did not grow normally. It was evident, then, that the protein food, although sufficient in amount, was not of the right quality. On the other hand, the protein of milk, eggs, meat, and fish is of a satisfactory quality to produce growth. We must use care in selecting our protein foods, that we include the proteins that will produce growth, especially if there are growing children in the family.

Dried beans and peas furnish an economical source of protein and can be used to advantage in our diets, provided they are supplemented with the proteins mentioned above which will produce growth. The statement so often made that peas and beans are a poor man's meat is a bit misleading. The soy bean and peanut are also a valuable source of protein, and recent experiments have shown them to contain protein of extremely

good character.

Milk and milk products are very important food stuffs and one of our best protein foods. The fact that it is a complete food for the young during the first year of life makes it a very desirable food for children and adults. The peculiar nature of the fat of milk and the action of the mineral salts of milk in the system only emphasize its value as a food. Although milk has advanced in price constantly and continually for the past few years, it is at 14 cents a quart one of our cheapest sources of protein. The following comparisons of the cost of protein foods emphasize the importance of milk. Milk at 15 cents a quart is as cheap as sirloin steak at 39.9 cents a pound, or eggs at 37.7 cents a dozen.

One Quart of Milk Supplies

as much protein as 7 oz. sirloin steak 6 oz. round steak 4.3 eggs 8.6 oz. fowl

as much energy as 11 oz. sirloin steak 12 oz. round steak 8½ eggs 10.7 oz. fowI

Skim milk is one of our cheapest sources of protein food and should be used more extensively. The composition of skim milk compared with whole milk is practically the same minus the butter fat. All forms of cheese which are made from milk are also a valuable and concentrated form of protein food. Many people who experience difficulty in digesting cheese find this objection removed if the cheese is grated before eating. Cottage cheese, being of a porous texture, gives less difficulty in digestion.

Eggs, like milk, provide the natural food of a developing animal, and they too contain protein of a special value for building and repairing tissues. Like milk, they too contribute to the diet a valuable form of fat

and mineral salts.

The chemical composition of fish makes it well adapted to be used frequently as a substitute for meat. Through habit and custom, fish at present has a place on our table only once a week. This is not because fish is not well liked by the average person, but because the housewife is not acquainted with the many varieties of fish on the market and the possible ways of preparing it for the table. Some fish are better during some seasons of the year than at others. The following table may be helpful in determining the season when the different kinds of fish may be used.

Cod, haddock, chicken halibut can be obtained practically all the

Flounders are not so good in November, December, and January.

Smelts are in season from June to March.

Mackerel are in season from May to September. Shad are in season from January to June. Salmon are in season from May to September, but can be obtained the

greater part of the year.

Bluefish are in season from May to October. As it is frozen and kept in cold storage from six to nine months, it may be obtained practically all

Meeting the request that fish be served two days a week will be a simple matter for every housekeeper, but can we not further relieve the meat shortage by substituting one of the following dishes for meat in our dinner on one other day in the week?

Salmon Loaf

Remove the skin and bones from a can of salmon, and chop the fish fine. Beat two eggs well and add to them 1½ cups bread or cracker crumbs, ½ teaspoon salt, speck of paprika, lemon juice, and a sufficient amount of milk to make moist. Combine with the salmon, adding 2 tablespoons of melted butterine. Mix all ingredients well, put in a greased mold, steam a half hour. Serve with medium white sauce, using liquor from the salmon in place of part of the milk.

Halibut Hollenden

Cut fish into fillets or in pieces about three inches long and two inches wide. Put as many slices of onion in the pan as you have pieces of fish. On each slice of onion place a piece of fish sprinkled with salt and pepper, and place a bit of bay leaf in the pan. Cover with a half a cup of stock or a half cup of water. Place a thin slice of fat salt pork on top of each piece of fish. Cover with buttered paper and bake. A large slice of halibut may be cooked in this way. When cooked, cover with buttered crumbs and brown in a hot oven. The sauce in the dish may be thickened and served with the fish or an oyster sauce may be served.

Fish Chowder

Order a three-pound fish skinned, head and tail left on. Cut off head and tail, and remove fish from back bone. Cut fish in two inch pieces and set aside. Take head, tail and back bone, broken in pieces, add one quart of cold water, and let simmer 20 minutes. Cut a two inch cube of fat salt pork, put in a frying pan, add one sliced onion, and stir and cook five minutes. Strain into saucepan, add one quart of potatoes, pared and cut in cubes. On top of the potatoes lay the fish cut into pieces, and strain the water from the fish bones over all. Cook until potatoes are soft. Spilt eight common crackers and cover with one cup of cold skim milk. Scald three cups of skim milk in double boiler, add to chowder, with 2 t. salt, ¼ t. pepper and the soaked crackers.

English Monkey

Soak one cup of stale bread crumbs 15 minutes in one cup of milk. Melt one tablespoon of butterine, add one-half a pound (1 3-4 cups) mild cheese cut in small pieces, and when cheese has melted add soaked crumbs, one egg slightly beaten, one-half teaspoon salt, and a few grains of cayenne. Stir and cook 3 minutes and pour over toasted crackers or toasted bread.

Corn Meal Mush with Cheese.

Mix one cup of corn meal and one teaspoon of salt, add slowly to four cups of boiling water. Stir until smooth, and cook in a double boiler or freless cooker several hours Add one half cup of grated cheese and one fourth teaspoon of paprika. Spread in a shallow pan three fourths of an inch thick. When cold and firm cut in slices and cook in a frying pan with bacon fat or drippings until brown on both sides. The mush may be cut

in slices, put in a baking dish, sprinkled generously with grated cheese, and baked in the oven until the cheese is melted. The mush may be cut like a French fried potato and fried in deep fat. This is a very good combination.

Nut and Cheese Roast

1 c. grated cheese 2 T. chopped onions

1 c. chopped nuts 2 T. fat

1 c. bread crumbs

Juice of half a Iemon
Salt and pepper

Cook onion in the butter and a little water until it is tender. Mix other ingredients, and moisten with water, using water in which the onion has been cooked. Pour in a shallow baking dish and brown in the oven.

Kidney Bean Stew

½ c. Kidney Beans 2 c. strained tomato

½ onion chopped fine 1 T. rice

1 T. fat Seasoning

2 small potatoes sliced

Wash and soak the beans over night, cook until nearly tender, add other ingredients, and cook together until all are seft.

Peanut Loaf

 $\begin{array}{lll} \mbox{1 c. chopped peanuts} & \mbox{1/2 c. milk} \\ \mbox{1/2 c. rice, uncooked} & \mbox{1 egg} \\ \mbox{1 T. butter} & \mbox{Seasoning} \end{array}$

Cook the rice, add the other ingredients, bake in a greased pan about 30 minutes in a hot oven. Serve with tomato sauce.

POULTRY DEPARTMENT

Selection of Poultry

The present price of feeds makes it imperative that we eliminate now all birds which will not pay a profit another year. There are certain external characters which may be best used at this particular season in

determining the high and low producers.

those breeds which have yellow legs.

The first of these characters is the molting of the bird. It is now well established that poor producers molt early in the fall and high producers molt late in the fall. Consequently, the early molters should be marketed. There are exceptions to this, but in the main it will be found a safe guide. Time of hatching will have some influnce on the molting, and should be given some consideration when selecting. Also, sudden changes in feeding or management often cause the birds to molt earlier than normally. A very heavy producer will molt rapidly and recover her plumage in a short time. Frequently, a hen may lay throughout the time of molting. Such a hen would be very valuable as a breeder.

Another valuable character to consider in making the selection of hens is the color of the shank at this season. The yellow pigment stored in the tissues of the bird is used in making the yolk of the egg. Hence, the more eggs a hen lays the less will be the surplus pigment or coloring matter in the tissues. This can be well observed in the color of the shanks. Birds with pale shanks are usually high producers, having "laid out" the color. The hen which has bright yellow shanks at this time of the year may usually be safely marketed. This test would apply only to

The pliability or velvetness of the comb is of value in determining the past performance of a hen. This is better used on Leghorns and other large combed breeds than on breeds with small combs. The high producer usually has a soft and pliable comb while that of the low producer This test is to be used only in the fall of the year.

In selecting the hens we should not rely entirely on any one test or character, but all the above should be combined. Each test will have exceptions and by applying the three tests these exceptions may be de-

The tests described apply only to hens.

From the birds thus selected, we should save the best for the breeding No bird should be used as a breeder, however, which has been This shows a weakness and the defect is quite diseased or deformed. likely to be transmitted to the offspring.

Some attention should be paid to the "Standard" requirements in choos-A detailed description of each breed will be found in ing the breeders. the "American Standard of Perfection." Birds so bred will be more attractive and their eggs when sold for hatching purposes will command higher prices.

Hens, as a rule, give better results as breeders than do pullets. performance has been tried. They lay larger eggs which hatch larger Experiments have well demonstrated that there is better development and less mortality arong chicks hatched from hens' eggs than

among those hatched from pullets' eggs.

The male bird should receive especial attention. He should be from a high producing ancestry, possess a vigorous constitution, and show good development. It makes very little difference whether a cockerel or cock bird is used. However, we have usually had a chance to test the cock If he has given good results and is still active and vigorous, it would be better to use him than an untried cockerel. Many people make the mistake of selling off the fastest growing males for broilers and roasters since they are the earliest and bring highest prices. These rapidly developing males should be saved for breeders. The use of underdeveloped males year after year is certain to cause a decrease in the size of the progeny.

In selecting young stock we have very little to guide us other than development and vigor. Late hatched stock which has developed poorly will cause least loss if marketed now. The most vigorous and healthy

birds should be retained.

DAIRY DEPARTMENT Keeping Dairy Records

The keeping of records of the home herds is one of the requirements of the boys who study dairying at the Agricultural School. important records are inventories at the beginning and end of the year, records of receipts and expenses, breeding records, and milk records.

At the beginning and end of the year, the boys take inventories of the values of the animals and the values of all tools and equipment such as pails, forks, scales, and feed on hand. A comparison of the two inventories shows whether there has been an increase or a decrease in the value of the dairy. An increase would, of course, be considered a gain for the business and vice versa.

The principal record, of course, is that of expenses and receipts. Under expenses are listed such items as grain and hay fed, animals and utensils or tools purchased, bedding, green feed and labor. estimate the hay fed by weighing the amount given at a feeding. Under receipts are placed the values of milk sold and used in the house, cows

and calves sold, the estimated value of the manure, etc. This record is balanced every month so that at the end of the month it can be seen whether there is a gain or loss.

The breeding records show when each cow was bred, to what sire, when she will come due, when the calf was dropped, and what was done

with the calf.

The milk record we also consider very important. The milk from each cow is weighed at every milking and recorded on a milk sheet furnished by the Agricultural College at Amherst. At first the boys thought that this would take too much time, but they found that it required less than half a minute per cow. These records have led in some cases to the selling of cows that were not giving enough milk to pay for their feed. It has proved very interesting to study these milk sheets to see how the different cows varied. The boys also bring in samples of milk from each cow about once a month to test them for butter fat.

All these records are very simple and easy to keep, and really take very little time. We think that it would pay every dairyman to keep at least a record of receipts and expenses, and a record of the amount of milk given by each cow. It might not be necessary to weigh the milk every day; one day a week, morning and evening, would be sufficient. At this time, when feed is very high, we want to feed only those cows that pay; a milk record will show us just which they are, and which we should

dispose of.

ASHES AS A FERTILIZER

The person who burns wood for heating and cooking should carefully store the ashes in a dry protected place where they will not be permitted to leach, as they have a large fertilizing value. They not only contain potash and phosphoric acid in appreciable amounts, but also contain magnesia and lime. When applied to the land they also act indirectly to increase the available nitrogen content of organic matter in the soil.

Investigators have considered that there is enough potash and phosphoric acid in a bushel of house ashes to make it worth about 20 cents. Besides that, some 10 or 15 cents additional might be allowed for the "alkali power" of the ashes. It is this power that enables ashes to rot weeds and to ferment peat. The potash content of ashes will be lost if they are permitted to leach, and care should be taken to store them in

a dry place.

Wood ashes may be profitably applied as a top dressing to grass land and to pastures, where they will encourage the growth of clover and the better kinds of grasses, which will then crowd out inferior kinds and weeds. Wood ashes also may be used for corn and roots. Because of their lime content, they are not so good for potatoes, although sometimes they are used for this crop.

Ashes from hard woods (deciduous trees) are richer in both phosphorus and potash than those from pines and other soft woods. The ashes of twigs are worth more for agricultural purposes than the ashes of heartwood taken from the middle of an old tree. In general, the smaller and younger the wood burned, the better the ashes. The ashes of coal do not contain enough potash to make them valuable in this connection.

When buying wood ashes, it is a pretty good plan to have a guaranteed analysis, as their fertilizing value varies widely according to the methods that have been employed in handling and storing.

PROTECT BEES FOR THE WINTER

The temperature in the bee hive should be approximately 57 degrees Fahrenheit. When temperature in the hive falls below this point, the bees form a cluster. Those in the center begin to generate heat by muscular activity, and those on the outside crowd together to prevent the escape of the heat the others are generating. The lower the temperature outside the cluster is permitted to fall, the more heat must the bees produce inside, where the temperature frequently reaches 90 degrees or even more in abnormal colonies. Prolonged excessive heat production exhausts their vitality, and even if they survive the winter they are unfit for the task of brood rearing in the spring. This is usually the cause of "spring dwindling.". The adult bees, worn out by the hard winter die faster than the young ones everge, and the population diminishes.

Increased heat production also causes increased consumption of stores. This in turn leads to an accumulation of feces with consequent irritation, further activity, and more heat production. Sometimes the bees are unable to retain the feces and they are then said to be suffering from

dysentery.

These facts emphasize the necessity of properly insulated hives in any locality where the temperature often falls to 40 degrees Fahrenheit. It is not possible to give the bee hives too much insulation. To give them too little is very easy and practically universal. As a means of insulation, any of the various materials in common use, such as sawdust, chaff, broken cork, shavings, paper, dry leaves, etc., should prove satis-With sufficient insulation, the exact method of packing is also comparatively unimportant. A common practice, however, of packing hives at the sides, top and rear only, leaving the front facing the south and unprotected, is to be condemned. The theory of course, is that the heat of the sun will warm up the interior of the hive and reduce the work of the bees. Any channel, however, which admits heat into the hive will also let it out, and as in winter the sun shines even on clear days for only a small part of the twenty-four hours, more heat is lost than gained by this method.

Packing cases made so that three inches of insulating materials may be placed below the hive, five to six inches on the sides and ends, and eight to twelve inches on top, will generally give the hees in a hive so protected a comfortable place to pass the winter in. The weak place in the insulation of hives is the entrance. An opening eight inches wide and three-eighths of an inch high, constructed like a tunnel through the packing is abundant. Even this small opening should be shielded from the wind, as should the hive, whether it is insulated or not.

Bees properly wintered have the strain put upon them by severe weather greatly diminished, and are in better condition to take up active

work when spring comes than those left in unprotected hives.

One thing to remember in packing bees is not to delay it too long and do more harm than good. A colony that has been forced by low temperature to generate heat is considerably disturbed by the process of packing, and the temperature in the interior of the cluster is at once raised unduly. This may result in injurious premature brood rearing. Authoritics say that there is probably no place in the United States where it is safe

to postpone packing later than Thanksgiving Day.

Excessive and unnecessary heat production and the death of colonies by starvation, a common occurrence, are closely connected. The more heat the bees are called upon to generate the more honey will they consume. In consequence, if inadequate stores are provided for them, they starve before the winter is over. The thrifty bee keeper will aim to save bees, not stores, and will therefore be liberal in his providing. If he really wants to save stores, he can do it by supplying insulation instead of stinting the bees.

FALL PLOWING

Fall plowing is practiced extensively by many farmers and vegetable growers. It is considered especially desirable on heavy types of soil. If the land is hilly or rolling, rough unbroken furrows will collect more water than when plowing is deferred until spring, and if harrowing is done as soon as possible, there will be a maximum supply of soil moisture to meet the needs of spring crops. The vegetable matter plowed under in the fall becomes better decayed and the physical composition of the soil is improved. Besides relieving the pressure of spring work and permitting the early planting of crops, fall plowing exposes many insect enemics to destroying agencies, and thus reduces the ravages from this source. Many soils are too heavy to plow early in the spring because they are so wet and in such cases fall plowing becomes a necessity for early growing crops. No greater mistake can be made in the spring than to plow when the soil is not dry enough; in such cases fall plowing is the only timely remedy.

CARE OF MACHINERY

Care of machinery, one of the easiest things to overlook and the one most costly to the farmer if overlooked, is the proper storage of tools during the winter season. All plows, parts of potato planters, cultivator shoes, and the like should be given a coating of grease to prevent rusting before being stored for the winter. All parts of all machinery should be well oiled to prevent rusting and to insure easy adjustments the next time they are to be used. After the heavy fall work is completed, a farmer can spend a few hours of his time and a little of his money to no better advantage than in painting all the woodwork on his markers, cultivators, harrows, etc. All machinery should be kept in a dry place so as to prevent as much upkeep cost as possible.

CORDWOOD

The State Forester is urging the farmers of this state to employ their time this coming winter as far as possible in the cutting of cordwood, not only for their own use but for sale. Owing to the labor shortage last winter less than one-half the normal amount was cut so that good prices now rule and dealers are not fussy as to the kind or quality of the wood. In fact so anxious are they for wood that they will purchase it even slightly dried. Wood will be more scarce next winter than this as there will be less cut. Fuel wood is now bringing \$4 to \$5 per cord stacked on the lot, and \$8 to \$9 f. o. b. on the cars. The market in smaller cities and towns in the interior is better than that in Boston as the coal shortage is more keenly felt in such communities.

BOYS' AND GIRLS' CLUB DEPARTMENT

Nearly one hundred members of the Weymouth Canning Clubs are continuing their work of conservation through the late fall months as junior members of the Weymouth Branch of the Special Aid Society of American Preparedness. The boys in the schools are working and buying jars with the money they earn. The girls are putting up all material which is given them, in the club jars, and the products will be sold during the winter. One half of the proceeds goes to the Special Aid Society, and the rest is turned back into the club treasury. Drying of the late fruits and some vegetables is also being attempted by some club members, with very good success.

At the Eastern States Exposition, Springfield, October 12 to 20, the following receive prizes in the interstate boys' and girls' competition in which ten states competed:

George Lundquist, Stoughton, 2nd on shelled beans and cabbage, 3d on

squash.

Leo Greenberg, West Medway, 3d on Irish Cobbler potatoes. Emily Hallowell, Norwood, 4th on four pint jars of tomatoes.

The judging team on canned goods representing Massachusetts, made up of Emily Hallowell of Norwood, Alice Ingraham of Millis, and Gladys Harlow of North Easton, won fourth place in the interstate judging contest.

BROCKTON FAIR RESULTS

Fifteen pigs represented Norfolk County at the Brockton Fair and took seven prizes in the county pig club competition between Plymouth, Barn-

stable, Bristol, and Norfolk counties,

Some club pig owners, with as large or larger pig than those shown, were much disappointed when told that their pigs could not go because the records of feeding costs, labor, etc., required in the pig club work, had not been kept up. They learned, however, that to win at the end they must play the game right through, step by step, and next year they are all planning to come through with flying colors.

The prizes received by Norfolk County boys and girls were:

On Pigs (12 Prizes awarded)
Leslie Guild, South Walpole, 1st.
George Campbell, Norfolk, 3rd.
Arleen Raymond, East Weymouth, 5th.
Reginald Pulson, Randolph, 8th.
Thomas Chisholm, South Weymouth, 10th.

Francis Huff, South Weymouth, 11th. George Husbands, Weymouth, 12th.

Judging (5 prizes)

In the pig judging contest for club members, all the prizes were won by Norfolk County boys, as follows:

Charles Harris, West Stoughton, 1st. Joseph Dutton, Weymouth, 2d. Herbert Keene, North Weymouth, 3rd. Pierce Fitzgerald, South Weymouth, 4th. Reginald Pulson, Randolph, 5th.

Pig Club Story Writing Contest (5 prizes) Reginald Pulson, Randolph, 1st. Elba Eckberg, Dedham, 2nd.

WINTER EGG LAYING CONTEST

The new winter egg laying poultry contest starts November 1st. Any boy or girl from ten to eighteen years old, with ten or more hens can enter it. The requirements are to keep a record of feed fed and eggs received during November, December, January, and February. If you haven't joined yet, and want to, just put your name and address on a post

card, the number of hens and roosters you are keeping, and the breed, and send it to John T. Dizer, Norfolk County Agricultural School, Walpole, Mass. As soon as the application for membership is received, a record sheet will be sent you from Amherst. Until that comes, just keep the egg and feed record on a sheet of paper or in a note book.

Eggs at the present time are second only to milk in the cheapness of their food value, and as Mr. Farley, the State Club Leader, says in a letter about the Poultry Club, "The hen who lays an egg now lays a golden egg." So if you have any hens, get into the game and get two or three eggs where you got one before.



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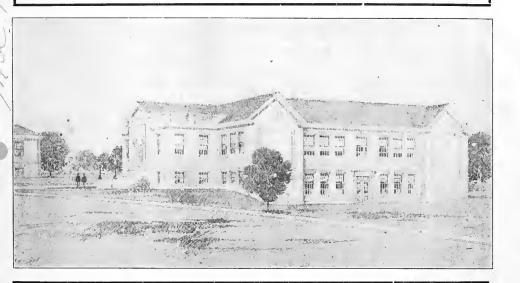
NORFOLK COUNTY AGRICULTURAL AND HOME MAKING BULLETIN

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SCHOOL STAFF

FREDERIC W. KINGMAN	Director
ANDREW N. SCHWAB	Market Gardening
·CAREY W. CARRICK	Poultry Husbandry
HORACE C. FUNK	Animal Husbandry
CHARLES W. KEMP	Weymouth Dept.
MARY E. SHEPARD	Sec'y and Accountant

FARM BUREAU DEPARTMENT

WILLARD A. MUNSON	County Agricultural Agent
STELLA S. SIMONDS	Home Demonstration Agent
JOHN T. DIZER	Boys' and Girls' Club Leader



NORFOLK COUNTY AGRICULTURAL SCHOOL

ANNOUNCEMENT OF POULTRY COURSE

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If there is sufficient demand, a series of lessons on poultry keeping will be given from January 15 to March 1. By this time, we hope to be housed in our new Poultry Instruction Building, where we will have proper equipment for this work.

It is planned to have two lessons a week for seven weeks. These lessons will last for about an hour and a half. There will be no charge for tuition and no books to buy. The lessons will be conducted by means of lectures, assigned readings, discussions, demonstrations, and practice work.

The topics to be considered will include: methods of housing; feeding; diseases, parasites, and sanitation; incubation; brooding and rearing; marketing; breeding; and other practical branches of poultry keeping.

We would like to hear from those interested in this course in order to make definite plans. Communicate with C. W. CARRICK, Poultry Department, Norfolk County Agricultural School, Walpole, Mass.



NATIONAL FARM LOAN ASSOCIATION ORGANIZED

Farmers and prospective farmers in this vicinity will be much interested to learn of the organization at Walpole, on Friday, November 16, of the Norfolk National Farm Loan Association of Walpole. Local arrangements for the meeting were made by Mr. W. A. Munson of the Agricultural School. The association is a branch of the Federal Land Bank of Springfield, Mass. This is the First District Bank for New England, New York, and New Jersey. The organization of the Norfolk Association affords an opportunity for any farmer or prospective farmer in Norfolk County and adjoining towns to apply for a long-term mortgage loan under very favorable circumstances.

Mr. Erwin H. Forbush, Field Organizer for the Bank, who was present at the meeting, explained the System in detail and assisted in the organization. Mr. Forbush pointed out that all loans are made on first mortgages, that the interest rate is five per cent, that by making uniform annual or semi-annual payments amounting to six per cent on the principal, both interest and principal are paid and the mortgage is wiped out at the end of thirty-six years, the period for which all loans are being made. He said, "A borrower is permitted to make only his regular payments during the first five years. After that period he may pay the whole, or, in multiples of twenty-five dollars, any portion of the loan on any payment date. In this way he knows exactly what he must do for thirty-six years and he is at liberty to do as much as he is able. So long as he does his part, he is absolutely guaranteed against foreclosure."

One may borrow to purchase farm property, to pay off existing mortgages and debts, to buy stock, fertilizers, and equipment, to erect buildings and make improvements, and to purchase shares in the local association. This list covers practically every purpose for which a farmer

might desire to borrow in the operation of his farm.

Anyone who desires money next spring might well file his application at once. Appraisals during the winter will depend upon the weather. After the appraisal and title work have been completed, an applicant may have his loan whenever he is ready for it. Persons who desire further information or who would like to join the association should communicate with Mr. W. A. Munson of Walpole, who was elected Secretary-Treasurer.

ADVISORY BOARD MEETING

The Advisory Boards of the Norfolk County Agricultural School met at the new school building in Walpole on Saturday, November 17, 1917, to hear the reports of the Director, F. W. Kingman, and the county agents of the Farm Bureau Department. Mr. Kingman gave a brief outline of what the work of the school was, telling about its benefit to those who were interested in the promotion of Norfolk County agriculture, and the advantages offered by the courses of the school to young people who are agriculturally inclined and wished to follow it as a vocation. Mr. Kingman expressed his desire to have every citizen of Norfolk County informed of the opportunities which the school offered.

Miss Stella S. Simonds, Home Demonstration Agent, gave her report first, giving a very concise and accurate account of her activities during the short time she has been at work in the county. After Miss Simonds finished, several of the ladies present told of the results which her dem-

onstrations had acomplished in the different communities.

An hour was taken at this time for luncheon, after which the County Boys' and Girls' Club leader, Mr. John T. Dizer, gave his report. He told of the great interest which had developed in boys' and girls' club work, the number of local club leaders who had been working in the county during the past season, and the necessity for an increased number in order to give the young people efficient instruction and supervision in the work which has demonstrated its value by the large number of boys and girls who have joined the various agricultural clubs and done exceptionally fine work in producing vegetables, poultry, pigs, canned products, and assisted in the homes through the Home Economics clubs.

The County Agricultural Agent, Mr. Willard A. Munson, gave his report last. He gave a summary of his work, accounting for his regular activities in statistical form with short explanations. The war emergency work, an addition to his regular program, was explained in some detail. Mr. Munson also told of the cooperation he had received from the instructors of the school in taking 48 meetings from his program, and also in collecting information necessary to advance the agricultural interests of the

county.

The men's and women's advisory boards then met in separate session to discuss the subject of bringing the advantages offered by the school to the attention of the boys and girls whom it might benefit. The county agents expressed their intentions of continuing the same work they had been doing, and taking on any additional work which the various communities might desire. The members of the advisory boards expressed themselves on the work which had been done and outlined plans for extending it.

A full report of the work done by the county agents of the Farm Bureau Department during the past year will appear in an early issue of

this bulletin.

POULTRY DEPARTMENT

Winter Egg Production

The essentials for good winter egg production consist of vigorous wellbred birds, proper housing, feeding, and management. Granting that we

have good birds, the problem is one of care.

The housing conditions must be right. Egg production is naturally highest in the spring of the year when the environment is most favorable to life. Hence, to get eggs out of season, we must supply natural spring conditions out of season. The housing must therefore provide comfort for the birds if we are to expect good egg production. This is secured by a dry, light and well-ventilated, well-drained floor, a house free from draughts, tight on all sides but front. It is a serious mistake to close the hen house up tight as cold weather comes on, for birds need fresh air in winter as well as the rest of the year. It is not the cold air that is harmful but damp air which is the result when the house is kept tight. A coat of whitewash will add light and cheer to the house and also has disinfecting properties.

At the present time, many people are making a serious mistake in their feeding. Where cheap substitutes can be used, it is unwise to feed relatively expensive feeds. Corn meal and hominy feed have the same food value, while the latter is usually much cheaper. There is little excuse for feeding corn meal when hominy feed is available at a lower price. Oil meal, gluten feed, and dried distillers' or dried brewers' grains should at present prices form a part of the laying mash. These feeds are all relatively high in protein and comparatively reasonable in price. Ground oats is also comparatively low in price when we consider its food value. Corm, oats, barley and wheat are all about the same in feeding

value for poultry. Their relative prices per hundred pounds should therefore largely determine which we should feed. It is doubtful if corn should be included in the scratch grain at present, except perhaps in small amounts for variety.

A balanced ration is desirable if not essential. The ration which we

are using at present is as follows:

Scratch Grain Mixture

15 lbs. eracked corn

15 " oats 20 " barley

15 " wheat

Dry Mash Mixture

10 lbs, wheat bran

5 " flour wheat midds.

10 " dried brewers' grains

5 " beef scrap

5 " hominy feed 10 " gluten feed

The scratch grain should be fed morning and night in deep litter and the mash kept in hoppers constantly before the birds. If desired to force we may supplement this method of feeding with a moist mash feed about noon using the same mash formula.

Full advantage should be taken of table scraps and swill where available, since they help save grain and would otherwise go to waste. Roots, cabbages, and other succulent feed should be supplied to get good results. Plenty of clean fresh water, oyster shells and grit should be kept before

the birds.

Sudden changes in rations or feeding methods should be avoided. Make the change gradually by mixing the old and new feeds together be-

fore putting the birds on the new ration.

A deep litter means a great deal in egg production. Exercise is absolutely necessary to keep any animal body in good health, and hens do not lay unless they are in a good healthy condition. Leaves, straw, coarse hay, chopped corn stalks, etc., make a satisfactory litter, and should be eight to ten inches deep. We believe that lack of litter, giving a lack of exercise, is often the cause of poor winter egg production where all other factors are favorable.

Poultry Survey

Under the direction of the Farm Bureau Department, a survey of the poultry industry in the county is being made. A letter in the form of a questionaire has been sent out to about five hundred poultry keepers who are listed as having fifty birds or more. The letter asks for information in regard to numbers and breeds kept; increase or decrease in stock this year; whether hatching eggs and stock are for sale in season; if flock has been profitable during the past year; whether records are kept; frank opinion as to future of poultry keeping; whether feed is bought or raised; eggs sold retail or wholesale; if organization of local poultry associations would meet with approval; and if interested in an egg laying contest to be conducted at the school beginning November 1, 1918.

The returns are not yet complete, but are large enough to warrant some interesting representative deductions. At present we are unable to give any definite figures or conclusions, but intend to give a report in the

next bulletin.

We deeply appreciate the response that poultry keepers are showing us in this survey.

Norwood Poultry Show

The Norwood Poultry Association will hold its Fifth Annual Exhibition December 12, 13 and 14. This year the show will be held in Everett Hall at the Norwood Civic Association, Corner of Washington and Winter streets, on the car line from Forest Hills to East Walpole.

The show this year has been enlarged to include, besides poultry, classes for pet stock pigeons. There will be a number of birds exhibited by the poultry students at the Norfolk County Agricultural School. Entry blanks may be secured from E. D. Baker, Secretary, 88 Nichols Street, Norwood, Mass. Entries close December 3, 1917. This show will be well worth seeing for anyone interested in good poultry.

HOME MAKING DEPARTMENT

Talks on Food Substitutes

The present shortage of wheat, fats, meat and sugar makes it necessary for each one of us to inform ourselves of substitutions that we can make in our diet for these foods. The Home Demonstration Agent will be glad to give the following series of talks and demonstrations in any town where a request is made for it:

- 1. Our Daily Food
- Planning our Meals 3. Demonstration—Ways of Relieving the Shortage of Sugar
- Demonstration—Liberty Breads 4.
- Demonstration—Attractive meat saving dishes Demonstration—Conservation of Fats

These talks may be given once a week for 6 weeks, or once in two weeks covering a period of twelve weeks, as may be desired by the local committee.

WINTER EXTENSION SCHOOLS

The Home Making Department of the Norfolk County Farm Bureau, in cooperation with the Massachusetts Agricultural College, has arranged to offer to any town that so desires, a winter extension school in Home Economics. These schools are arranged for a period of four and a half days or for three days. The only expense which the local people are asked to bear is for the entertainment of the two people conducting the school, and for the supplies used in demonstration. ing are the programs for these schools.

Program for Three Day Extension School

- Tuesday 9:00 This school and the needs of our nation in the war 10:00 Demonstration—Liberty Breads
 - 1:00 Our Food Stuffs
 - 2:30Demonstration (To be chosen)
- Wednesday 9:00 Three Meals a Day
 - 10:30 Demonstration—Conservation of Fats
 - 1:00 How may the Women of the community help win the war?
 - 2:30Demonstration-The Lunch Box
- Thursday 9:00 Kitchen Planning to save Time, Energy, and Fuel
 - 10:00 Demonstration—Attractive Meat Saving Dishes
 - 1:00 Sanitation in the Home
 - 2:00 Discussion—Food Conservation Programs

Program for Four and a Half Day Extension School

- Monday 1:00 Talk—This school and the needs of our nation in the war
 - 2:00 Demonstration-Liberty Breads with Yeast

Tuesday 9:00 Demonstration—Home-made Equipment 10:30 Our Food Stuffs

1:00 Demonstration—Saving of Sugar

3:00 Kitchen Planning to save Time, Energy, and Fuel

Wednesday 9:00 Three meals a day

10:30 Sanitation in the Home

1:00 Attractive Meat-Saving Dishes

3:00 Round-Table Discussion

Thursday 9:00 Demonstration (To be chosen) 11:00 Planning the Home Garden

1:00 Feeding of Children

2:30 How may the Women of this community help win the war?

Friday 9:00 Demonstration—Conservation of Fats

1:00 Talk on Poultry

2:00 Food Conservation Programs

3:00 Exhibit and Discussion of Liberty Breads

WHY WE ARE ASKED TO SAVE

Wheat The crop of our allies is short and they are dependent upon us to save them from a wheat famine. Owing to belligerent relations and transportation difficulties with other countries, the United States is the main source of supplies for the allied countries. They must have 220,000,000 bushels of wheat from the United States. We have only 88,000,000 bushels more than we use each year. The remaining 132,000,000 bushels must be accumulated by our savings. If each individual will save one pound or four cups of flour each week, this shortage can be met.

Meat Since the war began, 33,000,000 meat animals of our allies have been slaughtered because there was no feed for them in the war torn fields. Neither are there men to grow feed on the lands that have not been ruined. The men are waging war. More meat is being used at the present time for many of the men have been taken from sedentary life and put into active service on the battlefield. The men who are fighting must have meat, for fighting is the hardest work in the world. We can send this meat to the Allies if each person will eat one ounce or one cubic inch less of meat each day. Eat more fish, poultry, perishable fruits and vegetables.

Fat Our Allies can barely get enough fat to keep them going. Butter is very hard to get in Europe because the feed for dairy herds is so scarce. Last year we had to ship to our Allies three times as much butter as we did before the war. As the war goes on we must ship them more and more. Do not cook with butter. Save all grease, fat, trimmings, and use them for cooking or in making soap, or sell them to a collector. Glycerine is made from fats, and thousands of tons of glycerine are being used to make explosives. Waste fat, and you endanger the supply of our ammunition. Help win the war by saving at least one third ounce of fat a day.

Sugar Before the war, England received her supply of sugar from Germany. France, Italy and Belgium supplied themselves with sugar. Since the war, England's supply has been totally cut off and France, Italy, and Belgium are producing only one third of the amount that they use. This deficit must be met by the United States. Six million tons of sugar are required for the United States and the Allies. Five and a half million tons are produced. How, can we furnish the other half million tons?

By Using By Not Using

Fruits Candy
Dark Cakes Frosted Cakes
Syrups Sugar on Cereal
Dried Fruits Sweet desserts

Jams and Honey Sugar in tea and coffee

Following are some desserts which will help in conserving sugar:

Coffee Taploca Pudding

(c. cup t. teaspoon T. tablespoon)

1 qt. hot coffee 2 eggs

5 T. tapioca (minute) Karo corn syrup to taste

½ t. salt ½ t. vanilla

Put one quart of strained coffee in a double boiler, add the tapioca, and cook 15 minutes, stirring occasionally. Beat the yolks of the eggs thoroughly, add the karo corn syrup and salt and beat until light. Add the tapioca mixture. Cook 3 minutes. Remove from the range, add the beaten whites of eggs and vanilla. Serve cold with cream or a custard sauce.

Baked Indian Tapioca Pudding

3 cups scalded milk
2 T. minute tapioca
2 T. corn meal
4 c. molasses
2 tittle nutmeg
5 mall piece of butter

Add the scalded milk to the dry ingredients. Stir until well blended. Bake 2 hrs. in a slow oven without stirring. During the last hour, add 1 cup of cold milk. Serve with whipped cream.

Apples in Maple Syrup

8 apples 1 1-3 c. water 1 c. maple syrup 8 t. butter

Cut apples in halves, remove the cores with a teaspoon. Put into a baking pan with maple syrup, water, and butter. Bake in a moderate oven until the syrup is thick, basting occasionally. About 45 minutes is required.

Stewed Figs

1 lb. figs 2 c. water

Wash the figs and remove stems. Soak them an hour in water and then simmer gently in the same water water has evaporated to a thick syrup. Sorve with whipped cream.

Popcorn Cake and Cream

A very simple but quite delicious dessert may be had by serving molasses popcorn cake with top milk or cream. This is not a familiar dessert but has proved to be a popular one.

Grapenut Pudding

1 c. grapenuts 3½ c. milk

2 eggs 1 c. seedless raisins

2 T. white Karo Corn Syrup ½ t. salt

Heat the milk and add while hot to the grapenuts. Soak until cool. Then add the Karo Corn Syrup and yolks of the eggs. Fold in the stiffly beaten whites of eggs just before baking. Bake in a slow oven one hour. Serve with a sauce.

Oatmeal Pudding

4 c. milk 1 c. molasses 1 c. oatmeal 2 eggs

1 c. water \frac{1}{4} t. each ginger and cinnamon

1 c. raisins 2 T. shortening

Cook the oatmeal and water until thick. Remove from the fire. Add other ingredients. Put in a buttered baking dish and bake two hours in a slow oven.

Steamed Graham Pudding

 $\frac{1}{4}$ c. shortening $\frac{1}{2}$ c. molasses $\frac{1}{2}$ c. milk $\frac{1}{2}$ t. soda $\frac{1}{2}$ t. salt

1 c. raisins, seeded and cut in pieces

Melt shortening, add molasses, milk, egg well beaten, dry ingredients mixed and sifted, and raisins; turn into buttered mould, cover and steam two and a half hours. Serve with a sauce. Dates or figs cut in small pieces may be used in place of raisins.

St. James Pudding

Mix and steam same as Graham Pudding. Serve with a sauce. A simple delicious pudding without egg. Puddings may be steamed in buttered one-pound baking-powder boxes, providing they do not leak, and are attractive in shape and easy to serve.

Rice with Fruit

3 c. boiled rice 1 can peaches

Line a mould with peaches, and pack tightly with hot boiled rice. Set to cool. When cool and firm, turn out of mold and garnish with peaches. Serve with fruit juice. Pineapple, pears, or canned berries may be substituted for the peaches.

Hot boiled rice served with cut raisins, dates, or figs and top milk makes a very good dessert.

HOME CANNED FOOD SAFE

An article in a recent magazine condemned as dangerous products canned by the cold pack method. The United States Department of Agriculture today issued the following statement prepared by the bacteriologists of its Bureau of Chemistry and the States Relations Service. This article has been written in defense of the cold pack method of canning.

"There is no danger that the type of food poisoning known as 'Botulism' will result from eating fruits or vegetables which have been canned by any of the methods recommended by the United States Department of Agriculture, provided such directions have been followed carefully. It is possible that in a number of instances the directions were not strictly followed and that spoilage has occurred. Of course, extreme care should be taken to ascertain before eating canned goods of any kind whether they are in good condition and if they have spoiled they should not be consumed.

In case of any doubt as to whether the contents of a particular can have spoiled, the safest plan is to throw it away, although all danger of Botulism may be avoided by boiling the contents of the can for a few minutes, since the Bacillus botulinus and the toxin or poison which it produces are killed by such treatment. No canned food of any kind which of canning given out by the Department of Agriculture, only fresh vegetables are recommended for canning, and sterilization is accomplished by the following processes: Cleansing, blanching, cold dipping, packing in clean, hot jars, adding boiling water, sealing immediately, and then sterilizing the sealed jars at a minimum temperature of 212 degrees Fahrenheit for one to four hours, according to the character of the material. of B. botulinus are killed by heating for one hour at 175 degrees Fahrenheit (according to Jordan's "Bacteriology" and other recognized text books), there is no reason to believe that the botulinus organism will survive such treatment."

CONSERVATION OF CLOTHING

The conservation of clothing is equally as important as food conservation. The shortage of wool and the increased demand for it makes it doubly important that we should economize in its use. In many homes a more complete use of garments could be made if one understood ways of renovating and remodeling garments which are only partially worn out. The following course of four lessons would give this information to many women who are anxious to make a better use of money and material.

- 1. Selection of Material and Equipment
- 2. Use and Alteration of Commercial Patterns
- 3. Remodeling and Renovating Garments
- 4. Remodeling and Renovating Garments (Continue work started in previous lesson)

These lessons would be well arranged once a week for four weeks, and could be given to a group of fifteen women. Arrangements for a course of this kind may be made by consulting the Home Demonstration Agent.

EXAMINE YOUR FRUIT TREES FOR BORERS

If your fruit trees have not yet been examined for borers, the work should be done immediately. The peach borer in particular is very common and peach trees should be looked over carefully in fall and spring. In the apple orchard, trees three to ten years old are most seriously injured. A strong knife and a piece of light wire, bent into a small hook at one end are the only tools required for their removal. The burrows can be readily located by the castings ejected during the summer. The bark should be cut away with a knife to uncover the burrow and if the borer has been working only one season, little more cutting will be necessary. A little practice will enable the worker to locate the worm without much difficulty. All cuts should be made smooth and open at the bottom to keep them drained out. If the borer is secured, the wounds will usually heal rapidly and without noticeable injury to the tree.

PROTECT FRUIT TREES

Don't forget to protect your young fruit trees against the attacks of mice and rabbits. Remove the grass and rubbish from around the base of the trunk and place a wire or paper guard about it, letting it extend a few inches below the surface of the ground and twelve to fifteen inches above.

A little precaution will save a valuable fruit tree. Once a tree is gurdled by mice or rabbits, it is ruined and nearly always an entire loss. Bridge grafting, although often practiced, is not easy to accomplish. Many fruit trees have been injured by rodents because the owners had not previously had losses by their depredations and continued to take chances by leaving the trees unprotected. It is of little expense and requires only a small amount of time to put on the guards,

Many repellant washes have been concocted with which to paint the trees. Most of them depend for results on a most villainous odor that is often more objectionable to the orchard owner than to the mice. Here is a wash, however, which is believed to really protect. It is proposed by M. A. Blake of New Jersey and recommended as a protector that works:

Commercial lime sulphur 3-4 gal.

Lime, 40 lbs.

Add water to make 50 gal, and apply with a brush or white wash sprayer,

In sections where damage from rabbits or ground hogs is feared, the tree trunks should be carefully covered, up to the first branches. Old newspapers wrapped spirally around the trunk and tied on with twine will give satisfactory results.

MARKET SERVICE PLANS

Extension Professor E. Farnham Damon, of the Massachusetts Agricultural College, has completed plans for a new and unique market service for farm produce in this state. Four officers have already been established for aiding in the economical marketing of farm produce by helping to establish a market news service, giving instruction as to the value of farmers' exchanges, assisting in establishing store and warehouses, aiding public and farmers' markets, giving instruction concerning transportation facilities, and standardizing grades and packages.

Norfolk County has been placed in the southeastern district in charge of Mr. Robert Merrick, formerly executive secretary of the Food Production and Conservation Committee of Quincy and Manager of the Quincy

Public Market.

It is expected that this plan will very greatly aid in the better distribution of food stuffs throughout the state and will bring about more satisfactory prices from the standpoint of both the producer and consumer.

Massachusetts Agricultural College

SHEEP—QUESTIONS TO DECIDE BEFORE ENTERING BUSINESS

Inquiries are often made as to the possibilities for raising sheep in this part of Massachusetts. Before entering this industry it would be well to consider it from all standpoints, as one would do before entering any business. Some of the questions one might ask himself are:

1. How much experience in the business have I had?

2. Is my farm adapted to sheep raising?

3. Can a large enough flock be kept to make it worth while?4. Has the farm sufficient pasturage that can be suitably fenced?

5. Does the farm produce enough roughage for winter feed?

6. Are there suitable buildings for winter housing?

7. Can I purchase good grade ewes and pay present prices uncertain as to how long the present high price of sheep products will last?

The wool and meat situation is becoming one of vital interest to both consumer and producer. The consumer is affected directly by the shortage of wool. Every time he purchases garments, the price has advanced, or less wool is in the goods which go to make the clothing. Persons of ordinary means are in many cases unable to afford lamb or mutton on their tables.

The decreased production of sheep and the increased demand for wool and meat have become so great that the United States Department of Agriculture is holding conferences throughout the country. One of these conferences was held in Boston, November 2. Representatives of the wool dealers, manufacturers, farmers, trade associations, and government and state officials were present. A committee was elected to pass resolutions, copy of which will be forwarded on application to the Agricultural School.

AN INTERVIEW WITH SWINE RAISERS

In a recent interview with the swine keepers of Braintree and Weymouth, it was learned that a large majority had reduced the size of their herds and were not planning to enlarge them. The difficulty of obtaining garbage supplies which formerly came from Boston has been the cause for which these men have given up keeping hogs.

In nearly every case, these men stated that they would double and treble the number of hogs in their present herds if garbage which they had

been able to secure in former times were again made available,

Increasing the supply of meat and fat is a vital question under present world conditions, and it is hoped that some arrangement will be made so that men who are willing to keep hogs can again have access to garbage supplies.

DAIRY RATIONS

The shortage of freight cars in which to ship grains, and the unusually high prices makes the problem of feeding dairy cattle unusually perplexing. Some of the by-products feeds that have in past years been in general use, such as distillers' grains, have been withdrawn from the open market as practically the entire supply of this feed is now being used in the manufacture of the different ready rations. It is safe to predict that these ready rations will be more generally used this year than ever before. The feeder who is mixing his own has had to give up in many cases the use of grains that have been giving him good results on account of their not being economical at present prices. Taking into consideration the feeds available, their fertilizing value, and their prices, the following mixtures are suggested:

No.	I	No.

200	1b.	ground oats	200	lb.	ground oats
200	lb.	bran	200	lb.	bran
100	1b.	cottonseed meal	100	lb.	cottonseed meal

100 lb. gluten feed 100 lb. linseed oil meal

TIMELY TALKS FOR GRANGES, WOMEN'S CLUBS, BOARDS OF TRADE AND OTHER ORGANIZATIONS

The members of the teaching staff and the Farm Bureau agents are prepared to give addresses on subjects listed below before any group of interested people in the county. This offer so far as it affects the teachers, is subject only to the condition that no encroachment shall be made on time needed for the adequate performance of school duties or the visitation of the home projects of the students.

We suggest that those desiring this kind of service write or telephone

the Director or county agents at an early date.

Subjects-Home Making Department

Our Daily Food

Meal Planning at War Time Prices

Eliminating Wastes of Food

4. The Home-made Fireless Cooker

5. Spending The Family Income

Saving Steps and Strength in Our Daily Work

7. The School Lunch in Our Community

8. The Value of Domestic Science in Our Public Schools

Home Demonstration Work in Norfolk County

Subjects-Agriculture

Subjects—Gardening and Fruit Growing

Agricultural Development in Norfolk County

Factors in Successful Fruit Growing

What To Look For When Purchasing A Farm Agriculture From A New England Standpoint 3.

Marketing Our Crops The Growth of Club Work

The Home Garden

Small Fruits

Use of Cover Crops and Green Manures

Fertilizers and Manures Storage of Vegetables

How to Mix Spray Materials Hotbeds and Cold Frames 6.

7. Insects and Diseases

Subjects-Poultry Department

Poultry Diseases, Parasites and Sanitation

Building the Poultry House

3. Incubation

Brooding and Rearing of Chicks 4.

Breeding Poultry 5.

Marketing Poultry Products 6.

7. Poultry Management

Some Factors Causing Loss in Poultry Keeping 8. 9. Economic Production of Poultry Products

10. The Home Flock

HALLOWEEN PARTY

A Halloween party was held at the school the evening of November 2d. Each student had the privilege of inviting two guests. About 125 were present. An old fashioned husking bee with an occasional red ear and accompanying reward added to the merriment of the occasion. Songs, games, and dances, followed by refreshments of pumpkin and apple pies, doughnuts, and sweet cider, completed the evening's entertainment. Guests were present from Dorchester, Forest Hills, Mattapan, Quincy, Milton, Stoughton, Canton, Foxboro, Franklin, Wrentham, Bellingham, Medway, Millis, Medfield, Norfolk and Walpole,



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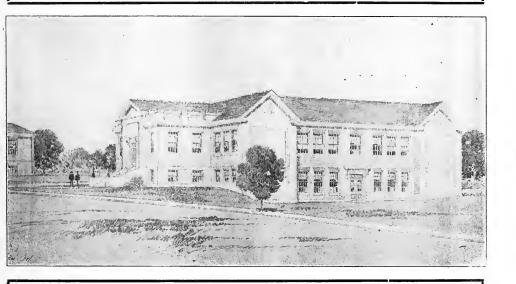
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SCHOOL STAFF

FREDERIC W. KINGMAN	.Director
ANDREW N. SCHWAB	Market Gardening
CAREY W. CARRICK	.Poultry Husbandry
HORACE C. FUNK	.Animal Husbandry
CHARLES W. KEMP	.Weymouth Dept.
MARY E. SHEPARD	.Sec'y and Accountant

FARM BUREAU DEPARTMENT

WILLARD A. MUNSON	County Agricultural Agent
STELLA S. SIMONDS	
JOHN T. DIZER	



COUNTY AGRICULTURAL SCHOOLS MEET FOR JUDGING AND ATHLETIC CONTEST

Bristol, Essex, and Norfolk County Agricultural Schools met at the Norfolk County Agricultural School in a combined dairy, poultry, and vegetable judging, and athletic contest, Friday, December 7th, at Walpole, The visitors arrived at eleven o'clock, going directly to the Lewis Farm, where the dairy cow judging contest was held. The members of the Essex team won first and second places, the third place going to a Bristol County man.

From the Lewis Farm the boys went to the Agricultural School for the poultry judging contest. In this event a member of each school team took a place, Essex first, Norfolk second, and Bristol third.

After time had been taken for luncheon, the vegetable judging contest was held, members of the Norfolk team taking first and third places, with a man from Essex placing second.

The above winners placed their respective teams, which were composed

of three men, as follows:

Dairy Cow Judging

1st Essex County Agricultural School 2d Bristol County Agricultural School 3d Norfolk County Agricultural School

Poultry Judging

1st Essex County Agricultural School 2d Norfolk County Agricultural School 3d Bristol County Agricultural School

Vegetable Judging

1st Norfolk County Agricultural School 2d Essex County Agricultural School 3d Bristol County Agricultural School

The athletic contests were close and exciting with the large majority

of first and second places going to the Essex boys.

The enthusiasm of the Essex rooters was a feature of the day's pro-. They backed their representatives with organized cheers and songs as they entered, won or lost in each event.

The final score for each school is as follows: Essex 63, Norfolk 16,

Bristol 4.

BOARD OF AGRICULTURE MEETING IN WORCESTER

Fifty-Fifth Annual Convention of Farmers

On January 8, 9, 10, farmers who are in a position to attend the annual round-up of the farming interests arranged by the State Board of Agriculture, should endeavor to make the trip to Worcester. Lectures will be given in the ball-room of the Hotel Bancroft by prominent agricultural leaders, including Carl Vrooman, Assistant Secretary of the United States Department of Agriculture.

A Massachusetts vegetable growers' association will be organized on

the afternoon of the first day.

The agricultural exhibits will be held in Horticultural Hall, on Front Street.

For programs and detailed information, address Secretary Wilfred Wheeler, Board of Agriculture, State House, Boston, Mass.

FOREST PLANTING STOCK FOR SALE

The State Forester has the privilege of selling at cost from his nurseries forest planting stock under regulations approved by the Governor and Council. The supply of stock on hand for sale is estimated at seven hundred thousand four-year white and Scotch pine transplants. These will be sold under the following regulations:

These trees must be planted on land in Massachusetts. Not more than ten thousand nor less than one thousand will be sold to a purchaser. No Scotch pine transplants will be sold except as part of an order with white pine. The mixture of white and Scotch pine is for the benefit of those who may be alarmed over the possible increase of pine blister rust.

The price for this stock is \$7 per thousand. Application blanks and planting directions may be obtained from the State Forester at the State

House.

BOYS' AND GIRLS' HOME ECONOMICS CLUB

Starts February 1st

The late winter club work of boys and girls will commence February 1st under the name of "Boys' and Girls' Home Economics Club." A great deal of stress is being laid on this work at the present time, especially from the conservation standpoint, and in many cases is to be taken up as a definite phase of conservation programs.

Following are given the requirements and some conditions for join-

ing the club and carrying on the work:

Membership Time Steps in joining club

Club requirements

10-19 years of age

Feb. 1, 1918 to May 1, 1918 1. Talk over with parent

2. Sign card, return to local leader

3. Commence work

1. Complete 60 hours of work

2. Send in report sheet

3. Exhibit

4. Write story of experience

Sixty hours of work are required of each member. The work covers bread making, with emphasis on war bread, garment making, including patching and darning, and general household tasks, such as care of rooms, preparation of meals, cooking, etc. The division of the work will be twenty hours of either bread making or garment making, and the other forty hours divided among any of the household tasks. War relief work, while not required, is encouraged and will probably be an interesting part of the work in many places.

Each member of the club will be given a primer of instruction, and receive definite help in the work wherever it is organized. To every member completing the work will be given an official pin in recognition of the work done. State prizes are offered in this club, the same as in

all the other state clubs.

In Norfolk County, the work will be introduced wherever a competent local leader can be obtained and where the interest is such as to warrant it.

NORFOLK COUNTY FARM BUREAU REPORT

December 1, 1916 to December 1, 1917

During the year which this report covers, the regular work of the County Agent has been added to by the emergency work of food production and conservation. This emergency work, although requiring a large amount of time, has been carried along with the regular work of the Farm Bureau.

The development of the Farm Bureau and its continued growth has made it necessary during the past year to add to the staff a Woman County Agent and a County Boys' and Girls' Club Leader. An account of the work done by these agents is shown in their reports covering their

activities since coming into the county.

A large amount of assistance has been rendered the County Agent by the instructors of the Agricultural School. They have been able to take from the County Agent's program 48 meetings, and discuss with those present the problems of various agricultural subjects. The attendance at these meetings was 2950.

The County Agent sums up his work by the following figures, supplemented by brief remarks concerning the agricultural interests of the county

and the projects which were outlined at the beginning of the year.

Days in field	249
Days in office	55
Letters written	809
Project work	
Farm Visits	286
Demonstration Visits	141
Meetings at Demonstrations	4
Attendance	84
Meetings in relation to projects	99
Attendance	6213
Miscellaneous Farm Visits	61
Miscellaneous Meetings	21
Attendance	1182
Total Farm Visits	347
Total Meetings addressed	118
Total Attendance	7389
Telephone calls	800

EMERGENCY WORK

Early after war was declared, an invitation was extended to every town and local organization in Norfolk County to send delegates to a meeting at the Court House in Dedham. The response to this invitation showed the readiness of the communities, organizations, and citizens to immediately set to work on the program outlined by the State Food Production and Conservation Committee.

After those present had been informed by the representatives from the State Public Safety Committee and the Massachusetts Agricultural College of the necessity for county and local food production and conservation committees, a county committee was elected, its duties being to urge those towns which had not complied with the request of the state committee to appoint local committees to expedite the appointments. The county committee also advised the County Agent to outline programs of procedure to fit the various towns, and to cooperate in every way with the state and local food production and conservation committees.

Working in this cooperative way, a campaign for the production of more food and its conservation was carried on. The growing of staple crops in the home garden was emphasized as a means by which increased production could be accomplished. This was taken up enthusiastically by all those who came to the meetings of the local committees, and by many who were reached through the publicity of the need for greater food production.

More Home Grown Feeds Grown

The farmers were advised to make an effort to grow more of their stock feed, corn for grain, and in the case of corn for ensilage to make it more nutritive by planting with it, soy beans. It was not thought advisable for growers to attempt the growing of crops with which they were unfamiliar, and for which the character of the soil did not seem suitable. Those who planted normal acreages with increased fertility and care were the ones who reaped largest returns.

Garden Courses Requested

Requests from groups of people through their respective town Food Production and Conservation Committees for information to help in making good gardens and caring for them, required the outlining of garden courses and demonstrations. These covered, in from two to eight meetings (according to the time a group could give) the essential facts for successfully planting and raising vegetables and staple crops in the home garden. A total of 46 home garden meetings was held with an attendance of 3693.

Conferences Held

Conferences were held with the local food production and conservation committees, at which many problems were discussed and methods outlined for securing the best results. Many good suggestions were obtained in these conferences and distributed when they could be used.

Results from Community Plantings

The best results from community planting projects were obtained under the plan of pooling the funds and employing a practical farmer to rent and manage a piece of land. This insured good preparation and fertilization of the land, not too large an area, and the thorough care of the crop during the growing season. The planting of large areas by communities has in most cases been disappointing from an economic standpoint, but it has added materially to the food supply.

Community Markets

The desire of the Quincy Food Production and Conservation Committee to make an outlet for the vegetables raised by its market and home gardeners and those of the surrounding towns, created the community market idea, and Quincy was the first city to put it into operation. During the season six other towns in Norfolk County had markets of this type in operation.

After the season was over a survey was made of these markets, and

the following facts were ascertained:

The opening of the markets covered a period from July 14 to September 1; five were operated twice a week, and two once a week. Four were open during the entire day and three for a portion of the day—one mornings, one afternoons, and one evenings. A total of 99 farmers rented stands or space at 25 to 30 cents a day and sold their own produce, while 127 smaller growers and home gardeners paid a commission of 5 per cent. to have their vegetables sold. The markets closed on dates between September 29 and November 24, with total sales of vegetables amounting to \$49,595.84.

With the exception of one town, whose committee has not yet met, all have signified their intention of operating community markets during the season of 1918, and of opening them earlier in the summer.

The large patronage of these markets has demonstrated that consumers are willing to come and carry home their vegetables when they can be

obtained fresh and at reasonable prices.

Storage

As the harvesting season approached, for the benefit of those who had grown large amounts of vegetables, and for those who wished to purchase their winter supply, a storage demonstration was started. In the centre of the county, a storage exhibit was arranged showing the various types of outdoor storage pits-the open pit, the barrel pit, and the large permanent protected pit. Definite directions for construction and care Ten storage talks were given through the county, were posted by each pit. with a demonstration of the outdoor pit construction, filling with vegetables and covering. It is hoped that when new houses are built, storage conveniences will be arranged by the architects in the shape of a cold room in the cellar or an offset room from the cellar under the piazza or In the fall of the year vegetables can usually be purchased at more reasonable prices than during the winter, and if consumers have dependable storage facilities they can purchase their winter supply early, and help to relieve gluts and equalize prices.

Benefit Derived from Home Gardens

Those who had been in the habit of having home gardens, enlarged them and gave them better care, thereby reaping a greater production. Many persons for the first time planted and cared for gardens, with various degrees of success. The good results were in the majority, but the inexperienced home gardener realizes now, along with the man who is in the habit of having a good garden, that the farmer is none too well paid for the work and time he puts into the growing of his crops. Aside from the economic gain derived from the home garden venture, many have found it a source of considerable pleasure and education, and a means of appreciating the value of fresh vegetables. Probably the home garden has served to increase the consumption of vegetables more than any other feature.

The local fall exhibitions were a feature in nearly every community, and the increasing quality of the exhibits, with the added interest that is apparent as each succeeding fair is held, demonstrates their educational value. At these local fairs, the exhibitors and general public are given an opportunity to see the results of the work put into the growing of garden and farm products and to discuss the methods used by the best growers in obtaining products of highest quality in quantities sufficient to

pay for the time, money, and labor expended.

FARM BUREAU PROJECTS

The projects on fruit growing, farm management, soil improvement, girls' and boys' club work, which are adapted to Norfolk County conditions have been continued during the past year.

Orchard Improvement

There are distributed through the county 15 orchards demonstrating different methods of management. The ages of these orchards range from two to forty years. The young orchards are being grown by both

the sod mulch and open cultivation methods. They are in their thrifty appearance showing the results of fertilization, spraying for scale and other insects and fungus diseases, the digging out of borers, the thinning of fruit, and the protection against injury of rodents during the winter. These young orchards show that fruit trees can be grown on our soil with very satisfactory results. Although but few of them have come into bearing, those that have demonstrate that high quality fruit will be the result of the excellent care given the young growing trees. The old orchards which have been renovated are demonstrating by their improvement the results of thorough pruning, cultivation, spraying, and fertilizing. Last spring one pruning demonstration was given in the orchard belonging to C. A. Wilson of West Medway. Twenty fruit growers met here and each had the opportunity to prune one or more trees after Mr. Austin D. Kilham, Extension Specialist in Fruit Growing, of the Massachusetts Agricultural College, had demonstrated his methods.

Both tree and small fruit growing offers one of the best opportunities of any branch of agriculture in Norfolk County. There are 200,000 people in the county, and the fruit grown here supplies only a small percentage of the demand. A small area of land managed by one who is acquainted with the methods of fruit growing can be made to yield a very good income. This is demonstrated by the few growers who are making good with small acreages set to apples, pears, cherries, and small fruits.

Farm Management

During January and February of 1917, considerable time was given to returning farm survey records, and taking new ones for farmers who desired them. W. H. Bronson of the Massachusetts Agricultural College, spent a week in the county assisting with the work. Several of the farmers for whom the records were taken have appreciated their value and have kept accounts of their farm operations, and are now able to tell which is paying best and which to enlarge. In some instances the man with a farm record has found it easier to fill out his income tax blanks. Record books have been left with the farmers for their convenience in keeping accounts, but these have not been used as generally as was hoped. It is possible that some variations in the record book now being used would make it more practical. It is necessary to keep farm accounts if the operator is to know where his losses and profits are being made. Without being certain of these facts, it is difficult to determine which part of the farm business is offering the best opportunity for enlargement or curtailment.

Soil Improvement

During the past three seasons the main object of this project has been to demonstrate and bring to the attention of growers the need for the use of lime to correct soil acidity, and to improve its mechanical condition. This need for lime has been so thoroughly demonstrated that most farmers consider it a necessity if the best results are to be obtained in growing crops and improving the land. The greatest results to the general farmer after lime is applied, have come when the land has been reseeded to grass, clover, or alfalfa.

Better care of stable manures has been urged with the result that many are realizing the necessity of a protected manure pit to take the place of the old method of dumping in the open where the contents of the pile loses much of its value by the liquid content running off or soaking into the ground near by. There is no doubt that large sums of money could be saved if every bit of the liquid and solid matter of stable manure were conserved. The commercial fertilizer situation during the past seasons and its continually rising price, have made it necessary for all growers to figure on its most economical use.

Cover crops are being more widely used than ever before in order to increase the humus content of the soil and to take up plant food that would

be lost if the land were allowed to remain fallow.

The acreage in alfalfa has been practically the same during the past season with a few new pieces. Some winter killing in old fields was noted last spring, but nothing of a very serious nature. The areas that were newly seeded in August of 1916 came through the winter in good condition and gave three good crops. The use of highly prepared, fertile, well-drained land, lime, double inoculation, and northern grown seed are now realized to be necessary requirements for successful alfalfa growing. Those growing this crop successfully are providing every one of these essential requirements. The amount of green feed that can be obtained from a small piece of alfalfa during a season makes the growing of this crop well worth while.

Dairying

During the year, in order to aid those farmers whose herds were not headed by pure bred sires, and who were desirous of raising heifer calves, an effort was made to locate herds where good calves were obtainable. These herds are made up of pure bred stock, oftentimes including some very fine grade cows, the calves from which are not generally raised. The owners of these herds have been very generous, selling the calves from the grade cows and pure bred sires to farmers wishing to raise them at prices nearly the same as those offered by the butchers.

Farmers wishing to raise heifer calves should make an effort to

start with good ones, and grow them in the best possible manner.

KNOWLEDGE OF AGRICULTURAL CONDITIONS NECESSARY

At all times, the County Agent has endeavored to keep informed as to the conditions of the various agricultural activities of the county. This has been of utmost importance in order to answer inquiries from state and federal authorities concerning the difficulties under which farmers have been and are working to produce increased food supplies with high priced stock feed and fertilizers, and an abnormal scarcity of farm labor. In order to get this information, a survey of the dairy and poultry situation was made, in cooperation with the Massachusetts Agricultural College. The figures obtained from representative wholesale milk producers have been used with those from all sections of New England, to show that increased prices for milk were necessary if the producer was to make a sufficient profit to warrant his continuation in the business.

The information secured from swine raisers who have been depending on garbage from cities to feed their stock, shows that in nearly every case the size of their herds has been reduced with the curtailed amount of garbage available. In practically every instance, these men would increase the number of hogs they are now keeping if garbage could again be obtained

from Boston.

The poultry survey shows that the high price of grain has been the chief cause for many reducing the size of their flocks or going out of the

business entirely.

The willingness of farmers to furnish information, in order that definite facts could be compiled for use in the betterment of the business, has been greatly appreciated by those delegated to make the inquiries. In order to make testimony of value, those who are called upon to give it must back it up with absolute proof.

WILLARD A. MUNSON, County Agricultural Agent.

REPORT OF HOME MAKING DEPARTMENT OF NORFOLK COUNTY FARM BUREAU

December, 1917

The Hone Making Department of the Norfolk County Farm Bureau was organized for service May 21, 1917. Opening as it did during the season of production, the immediate demand was for instruction in the newer methods of preservation of fruits and vegetables. In order to meet the requests for this work, the greater part of the summer months was spent in giving demonstrations and information in regard to the canning and drying of fruits and vegetables. One or more demonstrations were given in 26 out of the 28 towns in the county, a total of 50 canning demonstrations and 21 drying demonstrations being given during the season. During the last two weeks of July, it was necessary to have an assistant, so that all requests for canning demonstrations might be granted at that time in order to prevent a waste of perishable food material.

In order that the canning information might be available to many people, an effort was made in six towns to find women who would act as local leaders in dispersing canning information among women in the different sections of the town. Canning schools for the purpose of instructing these leaders in canning were conducted by the Home Demonstration Agent during the early part of the summer. Reports from women who have canned this season indicate that much material has been canned this year with very general success.

Girls' canning clubs were organized for the first time in twelve towns in the county. Twenty-one clubs were formed, each club working under the direction of a local adult leader. These clubs met at least six times during the summer, learning from the leader at each meeting how to can some new fruit or vegetable. There were two hundred eighty girls actively engaged in canning clubs this summer, and as a result of their efforts between six and seven thousand jars of materials were Much interest and wholesome competition was inspired among the girls in these clubs. An exhibition was arranged in each town in the early fall where each canning club member exhibited one jar of every variety of material that she had canned, each girl having canned at least six varieties, viz: three vegetables, two fruits, and one jar of greens, Prizes awarded by the local committees and the first and second ribbon prizes awarded by the state for the best work in canning served to encourage better work among the contestants. Many of the exhibitions deserved and received much commendation and served as a very good object lesson of what may be accomplished in canning, inspiring others to obtain results equally as good. Many girls reported having taught their mothers how to can, and it was not uncommon to hear of a canning club member who had taught her neighbors how to can by the cold pack method. Much valuable experience was gained by the girls during their first year of canning, and as a result of this the work should show improvement another year. Two girls from Norfolk County and one from Bristol County were chosen for a canning judging team to represent Massachusetts at the Eastern States Exposition, the team winning fourth place in the contest.

In cooperation with the Massachusetts Agricultural College and the local food conservation committees, one-day conservation schools were held during the month of July in eleven towns. The program for this school consisted of five talks and demonstrations on the following subjects: the canning of fruits and vegetables; the drying and evaporation of fruits and vegetables; meal planning in the time of high prices; ways of eliminating waste of food; and the dry storage of root crops. These

schools were well attended and appreciated by the people in the various

communities, having had an average attendance of 85 people.

A series of three talks on food preservation was given in five towns during the months of July, August, and September. These talks were given once a month, the first one being a canning demonstration, the second a drying demonstration, and the third a talk on dry storage of root crops for winter. The latter was given by the County Agricultural Agent.

With the close of the season of production, the food situation took on a more serious aspect. The imperative need among the allied nations for a continuous supply of staple foods made it necessary for the United States to assume the responsibility of sending concentrated nutritious foods in the least possible shipping space. Realizing the necessity for economy and substitution of foods in our diet, there was a demand among the people for information on these subjects. In order that this information might reach people of all classes, it was recommended that it be given to small groups of women in all parts of the town. Eight towns have adopted this plan, and a woman has been selected in each town to act as a local leader, giving demonstrations to neighborhood groups and local organizations. A course of eight lessons in teaching people how to demonstrate the saving of wheat, meat, sugar, and fats, and the greater use of milk and vegetables in the diets, is being given in Boston by Miss Bradley, who has charge of Miss Farmer's School of Cookery. course is being taken by the eight local leaders from Norfolk County, Three lessons have already been given, and much satisfaction has been expressed by the women taking the course. Arrangements are already being made by the town committees for group work to be carried on by these trained local leaders.

Programs for winter extension schools in Home Economics are being favorably considered by several towns in the county. These schools are carried on cooperatively by the Massachusetts Agricultural College, the local town committee, and the Farm Bureau. The schools vary from two to four days in length, and include talks on the subjects of foods,

health, and sanitation.

Realizing that the conservation of clothing and clothing materials is as important as the conservation of foods, plans are being made in several towns for a series of lessons on the selection, renovation, and remodelling of clothing. These lessons will be given once a week for four weeks, and will include practical work for those taking the course.

In some towns where extension schools and local leaders have not seemed advisable, a series of weekly or bi-weekly talks and demonstrations is to be given by the Home Demonstration Agent. The subjects of these demonstrations are relative to the imperative needs in the present emergency—the saving of our staple foods, wheat, meat, sugar, and dairy products.

An effort has been made to interest women in the formation of Home Making Study Clubs. The great value of systematic study in these Home Making groups has been demonstrated by clubs previously organized for this purpose. One enthusiastic and interesting club has been formed in Sharon with an enrollment of forty members. This club holds bi-monthly meetings at the homes of its members, choosing from its membership a chairman for each meeting. This club has not restricted itself to the investigation and improvement of home conditions, but has become interested in civic problems. A committee from this club has been made responsible for establishing a conservation table in the public library where books and pamphlets relevant to food and home problems shall be assembled. Another committee is in charge of the food conservation column of the weekly paper, contributing each week valuable and timely information on the subject of conservation. This club has also taken

charge of the serving of a warm lunch to the high school pupils, one woman from the club being present and assisting in the serving each day. The institution of a warm lunch in this school has been made possible

through the efforts of this club.

With the canning club girls as a nucleus, it is hoped that more girls and boys can be interested in the Home Economics clubs this winter. These clubs are formed during the month of January and remain active during the following three months. Bread making, sewing, and discharging of household duties form the basis of this work, each member being required to complete a certain number of hours of work along the lines that he selects. These clubs can best be established through the public school organization, and this has been made possible through the cooperation of school superintendents in this movement. During the month when these clubs are being organized, an opportunity will be given to study conditions in the schools with the anticipation of establishing a warm school lunch

in many of the schools where it is so much needed.

The organization of the advisory council of the Home Making Department is not wholly completed, but herewith is an account of the attempted A meeing of the Woman's Advisory Board of the Home Making Department was called September 8, 1917. This board is composed of three women from each town, elected to serve on this committee because of the interest and assistance they have given in promoting Farm Bureau work in their towns. At this meeting, nine women were elected to act as a working body to meet monthly with the Home Demonstration Agent, suggesting plans and advising her in plans for furture work. This committee is known as the Home Economics Council. The following are the names of women elected to serve on this committee: Mrs. Charles S. Bird, East Walpole; Mrs. John G. Palfrey, Sharon; Mrs. John D. Mackay, Quincy: Mrs. Nathaniel Faxon, Stoughton; Mrs. Joseph S. Leach, Walpole; Mrs. Ulysses L. Burns, Franklin; Mrs. Frederick Mead, Brookline; Mrs. Evan F. Richardson, Millis; Miss Sarah E. Brassill, Weymouth. meeting of the Home Economics Council, December 8, 1917, the following officers were elected: Mrs. Charles S. Bird, Chairman; Mrs. John G. Palfrey, Vice Chairman; Mrs. Joseph S. Leach, Secretary-Treasurer. The first Friday of each month was the date chosen for the regular monthly meeting of the Home Economics Council. A committee was appointed at this time to formulate a constitution for the Home Making Department of the Farm Bureau.

The Home Demonstration Agent would like to take this opportunity to express appreciation and thank the members of the Advisory Board for the assistance which they have given her in the conduct of her work.

The following statistical summary gives briefly the results of the work and the division of the time of the Home Demonstration Agent during the six months of her work in the county:

Days in the Office	29
Days in the Field	83
Letters written	
Personal	290
Circular	18
Clubs organized	
Canning clubs	21
Study clubs	1
Demonstrations and Lectures	76
Attendance	5168
Articles written	18

STELLA S. SIMONDS, Home Demonstration Agent.

REPORT OF BOYS' AND GIRLS' CLUB DEPARTMENT OF NORFOLK COUNTY FARM BUREAU

A remarkable increase in interest has developed in the Boys' and Girls' Club work during the past three years. In 1915, there were two garden supervisors and Boys' and Girls' Club Leaders working in Norfolk County. In 1916, there were six, and in 1917, seventeen. The total enrollment of state club members has increased in a similar ratio, from 80 in 1915, to 795 in 1917.

The increase in local leaders and supervisors has been the key to the best work, and some very fine results have been obtained by the boys and girls under this trained leadership. These leaders met several times during the summer season to confer on ways and means for obtaining the best results. The exchanging of ideas and the duscussions of results from the ideas when put into practice, was very valuable to those who attended the meetings.

Results of the boys' and girls' work in various towns may be measured almost directly by the interest of the people of the community and by the ability of the local leaders. When backed by the adults of a town, the boys and girls in the agricultural clubs create a new interest for all in the community. This was well demonstrated in one Norfolk County town where the children's fall exhibition brought the adults from all sections of the town to see the display of garden products and canned goods in the hall, and pigs from the pig club in their crates outside. A harvest supper was arranged under the auspices of the Grange, and local talent furnished an interesting entertainment, after which the prizes were awarded to those boys and girls who had made the best exhibits, or who had done the best work during the summer.

The fall exhibits came as important endings to the summer work, and in nearly every town where the work was carried on the boys and girls were given an opportunity to exhibit their products—either garden, pig, or canned—at local fairs or exhibits held especially for them. These exhibits were in most cases as well selected and set up as the adult displays, and there were instances where the young people excelled.

In the spring when the gardening fever was strong, and in the fall during the fair time, it was easy to keep up interest in club work. In the summer, however, it was a little more difficult. So from time to time, groups met at various club members' homes and held meetings to discuss the important phases of the work at that time, or to practice selection and judging of vegetables or the judging of pigs, in preparation for the fair season.

This year for the first time in Norfolk County, two people and a trust company in three different towns made it possible for boys and girls to get little pigs on their personal notes, payable at killing time. About 170 boys and girls took advantage of these opportunities this year, and next year the number will probably be greatly increased.

Another new feature of the work was an exhibit held in connection with the Weymouth Fair, through the courtesy of the Fair Committee, where club members from all towns in the county could exhibit their products in competition for a number of prizes. Boys and girls from seven towns entered the competition, and the exhibits created a great deal of interest. It is hoped that next year this idea of a county wide exhibit can be enlarged and carried still farther.

A general survey of the club work for the year is given here:

Total Club Enrollment	795
Number of towns with club members	20
Number of local leaders	17
Enrollment by clubs:	
Canning	280
Corn	9
Home Economics	12
Market Garden	79
Pig	310
Potato	24
Poultry	81

JOHN T. DIZER,

County Boys' and Girls' Club Leader.

HOME MAKING DEPARTMENT

Eat Bread, But Save Wheat

Bread has invariably been referred to as our staff of life and it really is. The Belgian Relief Commission found that the loudest call of the people was for wheat. German experience has shown that if the bread ration is normal or sufficient, much substitution can be used in the case of the other foods. Seeing to the bread supply is the matter of first importance in the case of people living on short rations. The cereals, then, should have first consideration in the analysis of the food situation. But why do we hear so much about wheat? Why are we asked to save this above all cereals when we are most dependent upon it?

There are three grains that will make bread—wheat, rye and barley. They contain certain elements that when mixed with water can be kneaded, and under the influence of yeast they rise, and when baked form a loaf. These three grains alone will make bread as we know it. As one follows each nation's development, it is noted that they eat barley first; as it becomes more prosperous, barley is discarded, and rye is used; and finally rye is

cast one side and wheat is used.

The reason why wheat supersedes rye and barley is because the bread is whiter, of a finer texture, and has unquestionably a better taste. The flour has somewhat better keeping qualities, and wheat flour lends itself to the pastries and fancy articles as no other flour does. The emphasis laid upon the superior nutritive value of wheat flour is entirely exaggerated. There is no difference when used in a mixed diet. Why are we appealing, then, to the American people to send more than the customary amount of wheat to our Allies? Why should we not send them other cereals and leave us our normal wheat ration?

The United Kingdom depends almost entirely upon wheat for its bread. They are somewhat familiar with the use of corn meal, as are the people in Italy. We cannot send them corn meal, for it does not keep in shipping. We cannot send them corn, for they have not the necessary mills to grind it. The women of France are absolutely dependent upon wheat bread, which forms 52 per cent. of the total food of the French people—the present ration is 18 ounces per day. They eat no rice and no corn; they know nothing of oatmeal and rye, and of barley have little knowledge. Our great problem lies with France. Unless we wish to impose upon the French women the burden of entirely recasting their households, it is up to us to get more wheat to the Allies, especially to France. There is a certain amount of experimentation that one can do with the diet of a normal

healthy person, but the person who is harassed and overworked is not in a situation to tolerate any marked change in the normal diet. Our Allies are in this position. We must adopt one of two positions. Either our Allies must be taught a totally new use of cereals, or we must make the substitution in our country and supply the people who are actually fighting with the normal food.

OUR PROBLEM: To ship 132,000,000 bushels of wheat to the Allies THE SOLUTION: Save 1 pound or 4 cups of flour each week

Have one wheatless meal a day—more if you can—eat rye bread, corn bread, barley bread, and other kinds, instead of wheat bread, and serve less pie and cake.

Order your bread a day in advance; then the baker will not bake too much and have it go stale.

Cut the loaf on the table as each slice is needed; then none will go stale.

Make into puddings or toast every crust or piece that does go stale.

The introduction into our diets of the coarser cereals will be beneficial to most of us. We have accustomed ourselves and confined ourselves almost wholly to the use of the highly refined flours. These flours are deficient in mineral salts and "roughage", both essential in our diets as body regulating substances.

Many people have objected to using the so-called "liberty breads" because they do not like dark breads. This objection may be overcome by using the fine rye, barley, and corn flours instead of the coarser meals.

The following bread receipts may be helpful in conserving wheat flour:

Rolled Oats Bread

Two cups of rolled oats, 2 cups of boiling water poured over the oats. When nearly cool add one half cup molasses, one tablespoon lard, one half yeast cake softened in lukewarm water. Add sufficient amount of bread flour to make a stiff dough. Follow general directions for making white bread.

Rye Bread (Miss Bradley)

Add 2 T. sugar, 2 T. shortening, and 1 t. salt to 2 c. scalded milk. When mixture is lukewarm, add 1 yeast cake softened in ¼ c. lukewarm water, 3 c. bread flour, and 3 c. rye flour. Knead thoroughly, return to bowl, cover and let rise until mixture has doubled its bulk. Shape into loaves, put in buttered bread pans, again cover, let rise, and bake in a hot oven. This receipt may be used substituting other flours in place of rye flour.

Corn Cake

1 c. bolted Indian meal 1 c. milk

1 c. bread flour 2 T. baking powder

2 T. shortening 3-4 t. salt 1 egg 1-4 c. sugar

Cream the shortening, add the sugar, and cream together thoroughly. Add the egg which has been well beaten. Mix and sift the dry ingredients. Add the dry ingredients alternately with the milk to the butter and sugar mixture. Pour in well oiled pans and bake 25 or 30 minutes.

Sour Milk Graham Bread

Mix one cup of bread flour, 1½ cups Graham flour, 1 teaspoon of salt, ¼ cup of sugar, and ¼ cup molasses. Add 1½ cup of thick sour milk, mix with 2 teaspoons of soda and beat well. Let stand 20 minutes in a tin, and bake one hour in a slow oven. This receipt will make one and one half dozen muffins.

Brown Bread

 1½ c. Graham meal
 ¼ c. sugar

 1 c. Rye meal
 ¼ c. molasses

 ½ c. corn meal
 1 t. salt

 1½ t. soda
 2 c. sour milk

Mix the dry ingredients, dissolve the soda in the sour milk and add to dry ingredients. Beat well, Cut raisins or dates may be added. Turn it into a buttered mould. Cover tightly and steam 3 hours.

In the above receipts: c. cup, t. teaspoon, T. tablespoon.

FARM BUREAU DEPARTMENT NORFOLK COUNTY ACT. SCHOOL WALPOLE, MASS.

U. S. DEFT. OF ACR MASS. AGR. COLLEGE CO-OPERATING

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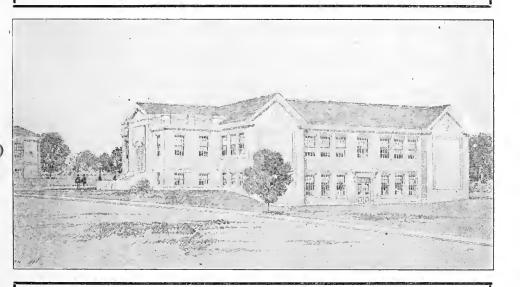
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SCHOOL STAFF

FREDERIC W. KINGMAN	.Director
CAREY W. CARRICK	.Poultry Husbandry
HORACE C. FUNK	.Animal Husbandry
ANDREW N. SCHWAB	Market Gardening
CHARLES W. KEMP	.Weymouth Dept.
MARY E. SHEPARD	.Sec'y and Accountant

FARM BUREAU DEPARTMENT

WILLARD A. MUNSON	у Α;	gricult	ural 1	Agent
STELLA S. SIMONDSHome	De	monstr	ation	Agent
JOHN T. DIZERBoys'	and	Girls'	Club	Leader



Timely Topics

NOTED POULTRY AUTHORITY TO SPEAK

Through the efforts of the State Committee on Food Production and Conservation of the Public Safety Committee we are very fortunate in having Mr. Edward Brown of England, to address the poultry keepers of the county at the Norfolk County Agricultural School, on February 8, 1918, at 2:30 P. M.

Mr. Brown has been for some time an international authority on poultry conditions. He has had wide experience as an investigator, has written several authoritative books, and is a very interesting and force-Those who heard him at the Massachusetts Agricultural ful speaker. College last summer well remember the good impression which he made

before the Poultry Convention.

No one interested in poultry keeping can afford to miss this opportunity to hear a man who comes from the war zone where a careful study of economic poultry production has been made and practiced under war conditions. We believe that many business men and women as well as the farmers would be interested to hear a man with the ability and He has addressed several large audiences durprominence of Mr. Brown. ing his present visit to America, and has always been well received. is a rare privilege to hear him at this time.

Professor A. G. Lunn, of the Poultry Department of the Massachusetts Agricultural College, is also to speak. Mr. Lunn is in close touch with poultry conditions over the state and the problems confronting the poultrymen. He is going to tell us about these present conditions, and especially about the cooperative work being done by various organizations of poultrymen. It will be of special interest to hear about the poultry

cooperative work being done in Plymouth County.

ORDER FERTILIZERS

We would like to urge those farmers who have not ordered their The man who has fertilizers, to give the matter immediate attention. his order placed now has the better chance of having his fertilizers when the time comes to use them. The transportation situation is such that it is absolutely necessary to have goods started early if they are to reach their destinations by planting time. The fact that our territory lies within a short distance of Boston does not seem to help much. formation comes now and then that some shipments have been at the terminals for several weeks waiting to be loaded.

If you buy your supplies through a local dealer, give him your order

immediately so that his supplies may be sufficient and on hand in time.

SEED SUPPLIES

The supply of seeds is short. This is true not only of many garden seeds, but of the field crops. When there is a shortage, there is an opportunity for seed of inferior quality to appear on the market. would recommend that all seeds be purchased early and thoroughly tested in order to get the best results from high priced fertilizer and help. Being sure of the seed is a long step toward a profitable crop.

LIME AGAIN

Although much is said about the use of lime and the results it brings. when properly used and when sufficient quantities are applied, there are many fields which are yet untreated and need the help of from one to two tons of ground limestone or air-slaked lime applied broadcast after plowing and harrowed into the soil.

Lime is not a fertilizer, but a soil conditioner. It sweetens the soil and does much to improve its physical condition. It does wonders toward promoting the growth of legumes. Legume crops make rich feed for both animals and the land. Get them once started on the farm, and the feed and fertilizer bills have a tendency to decrease. Lime helps to make conditions right for the growth of the clovers. Had we used more lime, and our farms been growing more clover, the present fertilizer situation would not be worrying us quite so much.

FARMERS ARE BENEFITED BY DAIRY SURVEYS

About twenty dairy farmers in Norfolk County were visited last spring by representatives of the Farm Bureau and the Massachusetts Agricultural College for the purpose of taking a survey of the cost of milk production.

During the recent hearings in Boston of the United States Reginal Milk Board, these figures with others taken in the same way in every county in New England were used for fixing the price the farmer should receive for milk, and the price the consumer of Boston should pay. It was found that to produce a quart of milk under Massachusetts conditions it cost the farmer \$.0845.

The Boston Chamber of Commerce has recently issued a booklet on the "Milk Question in New England," which covers the entire situation of the producer, retailer, and consumer, bringing out clearly the many items that make up the cost of production and handling before it reaches the consumer.

ARE YOU FOLLOWING THESE DIRECTIONS?

Ten million American homes—and more—have taken the pledge to help win the war by joining in the United States Food Administration to send to our armies and our allies as much as we can of the staple foods, meat, wheat, fat and sugar.

The food situation is constantly changing. To meet the conditions. the Food Administration must issue from time to time new directions to For the present, we are asked to arrange our foods to correspond with the following directions:

TWO WHEATLESS days each week, and one WHEATLESS MEAL each day; the wheatless days to be Monday and Wednesday. By wheatless we mean to eat no wheat products.

TWO MEATLESS days each week which shall be Tuesday and Friday, and one meatless meal each day. By meatless we mean to eat no red meat -beef, pork, mutton, veal, lamb; no preserved meat-beef, bacon, ham, or At present it is allowable to have poultry of any kind on meatless lard. days.

ONE PORKLESS day each week in addition to Tuesday and Friday, which shall be Saturday. By porkless we mean no fresh or salted pork,

bacon, lard, or ham, except as used in baked beans.

SUGAR-You can materially reduce sugar by reducing the use of candy and sweet drinks. We will make every endeavor to see that the country is provided with a supply of household sugar on the basis of three pounds of sugar for each person per month. Do not consume more.

Agricultural Department

Results of Poultry Survey

On November 8, 1917, the County Agent, cooperating with the Poultry Department of the Norfolk County Agricultural School, mailed a questionaire to about 550 poultry keepers of the county. These questionaires were mailed to all persons keeping fifty or more fowls. On January 3, 1918, a follow-up was mailed. Over 300 replies were received from all plarts of the county, so that fairly accurate conclusions can be drawn as to the poultry situation in the locality which the questionaire covered. The following are the questions and the summaries to them:

1. Have you decreased your laying flock this year? If so, how many?

Total number of fowls kept normally, 82,796

Total number kept at present, 51,744

Total number of increase, 1,593

Net decrease, 31,052

Percentage of decrease, 37.5

Number of poultrymen increasing or decreasing size of flock:

Decreased, 199

Increased, 8

Made no change, 86

No report, 8

Of the 199 decreasing, 23 went out of business entirely.

2. Do you think your poultry has paid you a profit the past year?

Number reporting profits, 127

Number reporting no profit, 137

Number not knowing, 37

3. Do you keep a record of expenses and receipts?

Number keeping records, 182

Number keeping no records, 83

Number not reporting, 26

4. What is your frank opinion as to possibilities for profits in keeping poultry during the coming year?

Number reporting optimistically, 68

Number predicting small or no profit, 187

Number undecided, 37

Number not reporting, 9

5. Do you raise a part of your feed, or do you buy all of it?

Number raising some grain, 85

Number buying all, 193

No reports, 23

Besides buying or raising grain, 60 reported as raising their green feed.

6. Do you sell eggs retail or wholesale?

Number selling retail, 149

Number selling wholesale, 55

Number selling both ways, 72

Number not reporting, 25

7. Would you favor a local poultry association to cooperate with other local associations to form a county organization for promoting the interests of the poultry in the county?

Number of poultrymen interested, 158

8. Would you be interested to enter a Norfolk County egg laying contest to begin next November?

Number interested, 76

Besides the above questions, there were three others asking the supply of hatching eggs, day-old chicks, and mature stock for sale in season. This information gives us a directory where available stock can be secured when inquiries come requesting it. We have compiled such a directory from the replies received showing the pure bred poultry keepers of the county and will be glad to mail to those interested the names listed in any town which is desired. This list shows the breeds kept,

whether eggs, baby chicks, or mature stock are kept for sale.

The first question relative to the decrease in laying stock shows a curtailment of 37.5 per cent. or over one third of the normal numbers kept. The 82,796 birds given as the normal number of fowls kept does not mean that only this number is usually kept in the county, but is based only on the 300 replies received. The percentage of decrease shown summary to question one is perhaps no more than should be expected, when we consider the abnormal conditions now existing. The poor producing hens should be culled at all times. The benefit of culling has been brought plainly before the poultry keepers since the war. Poor layers only consume valuable food which could be better used for other animals and human beings. The good birds, however, should be kept if possible.

From the reports received, it will be seen that about two thirds decreased their laying stock while less than one third either made no change or increased in numbers kept. Among the 199 decreasing, 23 closed out Although a large per cent, decreased their their poultry entirely. flocks more or less, it will be seen that a very small number or 7.66 per cent. closed out entirely. Some of these who disposed of their entire flocks kept only a small number of birds. Only eight reported an increase in their flock, and their combined increase above normal was 1593 fowls, or

an average of almost 200 each.

The numbers reporting profit and no profit are about equal. We believe that these replies relative to profit were fairly accurate, since 182 of the 300, or 60.66 per cent. kept business records. It appears evident from these figures that there is still a little profit in poultry keeping for some.

It is gratifying to find that so many are keeping records. those who kept records, 91 or 55.8 per cent. reported profit, while 72 or 44.2 per cent. reported no profit. In addition to this number, there were 19

others who kept records, but who made no report as to profits.

There was a great variety of interesting replies to the request for a frank opinion as to possibilities for profits in keeping poultry during the coming year. There were 68, or 23.66 per cent., who reported optimistically, or who believed the business would be profitable. There were 187, or 62.33 per cent., who believed that there would be little or no profit the This does not necessarily mean that these were ready to coming year. go out of the business. Most replies were agreed that the prices of grain and eggs would be the determining factors in making a profit the Several expressed the opinion that the business would be coming year. profitable if poultry men raised a part of their feed. Many stated that they intended to raise a part of their feed the coming year. Some thought that profits might be increased by selling some hatching eggs and baby chicks.

Almost two thirds of those replying bought practically all their feed, while 85 persons raised a part of it. Sixty people raised green food in the form of mangels, cabbages, rape, and other crops.

About half of those replying sold their eggs retail. The following

table shows the methods of selling and their relation to profit.

Relation of Selling Methods to Profit

	Pr	ofit	No	Profit
Method of Selling	Number	Per cent.	Number	Per cent.
Wholesale	19	37.3	32	62.9
Wholesale and retail	29	42.0	40	58.0
Retail	73	60.3	48	39.7

This table shows that of those selling eggs wholesale, a comparatively small percentage made a profit, while 60.3 per cent. of those retailing made a profit. There appears to be a correlation between retailing the eggs and profits.

A tabulation was made of those who reported that they kept records and retailed their eggs to see how many made profit or no profit. The

results are as follows:

Kept Records and Sold Eggs Retail

	Number Reporting	Per cent.
Profit	56	67.47
No profit	27	32.53

This would indicate a fairly close correlation between keeping records

and selling retail and profit in the business.

It is significant that 158 or over half of those replying favored a local poultry association to cooperate with other local associations to form a county organization for promoting the interests of the poultry industry in the county. It is planned to promote such organizations in the county within the near future.

The 76 replies stating their interest in an egg laying contest shows that it would be of real value and we hope that such a contest can be started. The starting of a contest will depend upon whether conditions

are favorable in securing proper management.

The willingness of farmers to furnish information, in order that definite facts could be compiled for use in the betterment of the business, has been greatly appreciated by those delegated to make the inquiries. In order to make testimony of value, those who are called upon to give it must back it up with absolute proof.

EARLY HATCHING AND MATING FOR PRODUCTION

We have a communication from the Poultry Department of the Massachusetts Agricultural College urging the importance of early hatching. The data might be summarized as follows:

1. Early pullets mean early broilers, early roasters, and early fall

egg production, that is maximum prices for products.

2. Early hatched pullets lay more eggs than late hatched pullets and lay at a season when eggs are highest in price, thereby giving a greater profit.

3. Records show that fertility and hatching power in February is al-

most equal to that obtained in March.

4. Early hatched chicks grow and do much better than late hatched

ones, providing of course they are cared for properly.

5. Early hatched chicks as broilers will bring about 15 cents each more than the late hatched ones; as roasters about 50 cents more; and as egg producers about \$1.13 more.

6. February and March are the months recommended for hatching.

Another communication on "Mating for Production" emphasizes the following:

- 1. Examine carefully each bird in the flock and use only the very best in the breeding pen.
- 2. The matings, for best results, should be complete about the middle of January.
- 3. For Asiatic breeds, mate six to ten females to each male; for American and English breeds, from twelve to fifteen females to each male; and for lighter breeds, like Leghorns, from eighteen to twenty-five.

4. Provide plenty of good food and exercise for these breeders.

INCUBATION

The selection of good hatching eggs is the first step toward successful incubation. Eggs should be selected which have a uniform color, normal shape—neither long nor round—and large size. About two ounces each or twenty-four ounces to the dozen is a good size. Eggs which have pimples, thin shells, and wrinkles in the shell should be discarded. These characteristics of size, shape, color, and defects are inherited. Use only clean and fresh eggs, preferably not over a week old. Dirty eggs which are washed do not give as good results as clean eggs which do not require washing. Provide clean nests. Great care should be taken to secure eggs from healthy and vigorous stock.

The care of hatching eggs should receive careful attention. Keep in a clean, well-ventilated, and well-lighted cellar at a temperature of fifty to sixty degrees F. They should be turned daily if they are to be kept

longer than a week.

It is usually most satisfactory to use hens for hatching where only a small number are to be hatched. When broody hens are not available early enough in the season, it is convenient and economical to have a custom hatchery do the work. This requires a brooder of some kind.

The sitting hen should be dusted with good lice powder before and during the hatching period. Feed, grit, and water should be provided for the hen and care should be taken that she returns to the right nest. It is not satisfactory usually to set hens in a house where there are layers for the eggs will get broken and the hen may go on another nest. Change the hen to her new nest at night, and see that she has a rather dark and quiet place. A nest 14 inches square and 12 inches deep, with two inches of soil or sod in the botton and straw or soft hay on this, shaped to conform to the shape of the hen's body, makes a satisfactory nest. The soil or sod will provide moisture, and if dry should be sprinkled before the hen is set.

If one expects to use an incubator, it is well to see that the machine is well disinfected before each hatch, and that a new wick is provided. The manufacturers' instructions should be carefully followed, since those directions have been carefully worked out for that particular make of machine. Have the machine level and running at the proper temperature before placing any eggs in it.

If one intends to buy an incubator, it is best to get a standard and well recognized make. It never pays to get a "cheap" machine. It is better also to get a large size, since the per chick capacity cost is less for

investment, fuel, and labor.

Many people are prejudiced against the use of incubators, but if good eggs, properly cared for, are used, the machine a good one, and the operation correct, good results will follow. The omission of any of these factors, however, may mean poor results.

Eastern Colleges Hold Poultry Feeding Conference.

Representatives of Departments of Poultry Husbandry of certain Eastern States, including that of the Massachusetts Agricultural College, recently held a conference to adopt a standard mash and scratch ration for laying hens. First, was the question of the determination of rations which would be acceptable to all. Secondly, there was the problem of choosing a ration which was so made up by special maximum and minimum variations in amount of the various ingredients, that it would be possible to adjust same to changes in feed supply, feed prices, and to Government regulation, without seriously injuring or altering the proper proportion of nutrients. It was further appreciated that this standardized ration would have two very material advantages. It would make possible cooperative buying of feed through the possibility of feed manufacturers preparing these mixtures and selling them in car load lots, to single poultrymen or to groups of poultrymen who are able to take advantage of large quantity buying. Furthermore, it would result in a standard mixture of known quality and usefulness, and if occasion required such mixture would give a uniform starting point from which modifications which might be made necessary, could easily be computed. It was further appreciated that each state had its own local problems, and that conditions would no doubt a ise where the use of certain products, locally produced, might make it desirable to materially modify the standard. ing rations were finally decided upon and approved as the basis for such standardization.

STANDARDIZED WAR RATIONS FOR POULTRY

Scratch Feed		Mash Feed		
Cracked Corn 50	0 lbs.	Wheat Bran 10	0	lbs.
Feed Wheat 100	, ,,	Wheat Middlings 10	0	,,
Heavy Oats 200	, ,,	Corn Meal or Corn Feed		
Barley 200) "	Meal or Hominy 10	0	"
	_ *1	Gluten Feed 10	0	"
1000) ''	Crushed or Ground Oats 10	0	,,
		Meat Scrap 10	0	"
			_	,,
		60	0	,,

The above ration was arrived at after a careful study of the nutrients carried, the possible supply of the various grains, and the probable price during the coming year. Since the Government has regulated the quantity of wheat in poultry rations at not over 10 per cent., this amount was used in the standard scratch ration.

The mixer may adjust the amounts of the various ingredients in order to take advantage of supply and variation in prices as follows: Cracked corn may vary from 40 to 60 per cent. of the total ration, or from 400 to 600 lbs. in each 1000 lbs. mixture. Feed wheat is to be constant at a 10 per cent. or 100 lbs. in each 1000 lbs. mixture. Oats and barley may each vary from 10 to 30 per cent. or from 100 to 300 lbs. in each 1000 lbs. mixture.

The above changes, however, can only be made always within above stated ranges, and then only in such amounts, that the combined mixture shall have at least 10 per cent. of protein, 68 per cent. of carbo-hydrate, 4 per cent. of fat and not over 5 per cent. of fiber. The above standard-

ized scratch ration contains approximately the following nutrients: 11.1 per cent. of protein, 72.6 per cent. of carbohydrates, 4.1 per cent. fat, and

4.6 per cent. of fibre.

The above standardized war mash was adopted as being the best mash mixture to supplement the previous grain ration, which it is possible to mix considering the amount and character of the nutrients provided, together with probable prices and supply or feed stuffs during the coming year

No modifications are allowable in the mixing of this mash as it is not deemed that such will be necessary or appropriate, and furthermore, even slight changes in the relative proportions of the various constituents might be of such a nature as to materially injure the balance of the ration. In order that only good standard grades of various feeding stuffs shall be used the following mimimum analysis must be guaranteed, namely, not less than 20 per cent of protein, 58 per cent. of carbohydrates, 5 per cent. fat, and not more than 7 per cent. of fiber. This mash mixture contains approximately, depending on quality of ingredients, 22 per cent. of fiber.

RULES FOR FEEDING

These rations are designed for the complete feeding of laying hens, the mash ration being especially designed for feeding in self-feeding

hoppers, and the grain ration preferably fed in deep litter.

A general recommendation is made that to the average flock of hens these rations be fed in approximately equal amounts of mash and grain. In cases of extremely heavy production, it will be desirable to induce a greater consumption of mash by restricting the amount of grain fed. On the other hand, to breeding stock, or to birds producing only moderately, it may be desirable to feed slightly increased amounts of grain. Two important advantages are gained by feeding considerable quantities of the mash; first, it carries a higher protein content which nutrient is especially necessary for egg production; secondly, the mash being the cheaper mixture a considerable consumption of this part of the ration results in lessened cost of total feed consumed.

The decision of the members assembled was to feed meat scrap in the proportion mentioned in the ration until the supply is exhausted, and this, regardless of price. The exception was mentioned that where obtainable skim milk or buttermilk would prove a suitable substitute. It seemed to be generally felt that the feeder could use one-half fish scrap and one-half beef scrap, although no one cared to go on record as recommending fish scrap as an entire substitute. Good digestor tankage was spoken of as a future possibility. It is expected that green feed, oyster shell, grit, etc., will be supplied in connection with these standard war rations, in

regular amounts.

At the same meeting, resolutions were passed urging the United States Food Administration to regulate the price of corn, and to counsel the sale of cold storage poultry products.

Government Urges Poultry Production

The United States Department of Agriculture urges as many as possible of the farmers who have not raised chickens, to stock their farms this year with flocks large enough at least to supply the needs of their own households. It does not advise that the general farmer embark in extensive raising of poultry, but warns against such ventures. But it sees no rea-

son why every farm should not produce enough chickens and eggs for its own use, and why there should not be enough surplus to make chickens and eggs available to the general public, and in such quantities that there will be markedly less domestic demand for the meats that are needed

abroad and that can be transported there.

One big aim in this endeavor is to increase to 100 hens the average size of the American farm flock. The present average is 40 hens. The desired increase it is believed will bring the desired production. Every pullet and young hen sold for food now means a reduction of from five to twelve dozen eggs in the potential egg supply of next spring and summer. The Department urges the saving of fowls of producing qualities so that they may be used for stock in the early spring.

More chickens and more eggs will release more meat for our armies and the Allies. They cannot get our chickens and our eggs, since it is difficult to ship them compared with heavier meat animals. Poultry can be increased more rapidly and more economically than any of the meat animals. Chickens will live largely, grow, and prosper on waste that never otherwise would be of use, and will eat the infant bugs, particularly orchard pests, before they have had opportunity to do great harm. Chickens require a minimum of attention. Most of it can be given by wo-

men and children. Very little heavy labor is required.

Early hatching is essential. The early hatched chicken not only lays the winter egg, but is best able to withstand disease and parasites. Late hatched fowls are late in maturing, do not lay well in winter, and do not sit until late in the following spring. It is the midsummer months that chickens are hurt most by lice. The late hatched chicken has not had time to become large or strong enough to resist lice attacks, but the early hatched chicken by midsummer has become strong and hardy enough to do so. Early hatching will increase the number and size of fowls and the number of eggs produced next year. It will mean bigger birds and better winter layers.

Every effort should be put forth to increase poultry production since this seems to be the only method of averting an inevitable meat shortage both in this country and abroad. It is up to the farmers and the back

yarders to produce as much as can be produced economically.

For Sale

We have a few good Single Comb Rhode Island Red, Barred Plymouth Rock, and White Wyandotte breeding cockerels which we will sell at \$3.00 each.—Poultry Department, Norfolk County Agricultural School.

200 bushels Stickney flint corn. Have won many prizes with my corn.
M. A. Evans, West Wrentham, Mass.

INCUBATION AND BROODING EQUIPMENT WANTED

Sometimes we have calls for the names of those who have secondhand incubation and brooding equipment for sale. We will appreciate it if those having such equipment for sale will send us a list of same, giving make, capacity, condition, number of years used, and price. It should be understood we cannot promise to find buyers for this equipment.

CHICKS AND HATCHING EGGS

In our recent survey of the poultry industry in Norfolk County, we included a request that those having stock, day-old chicks, and hatching eggs for sale give us their names so that a directory might be made. We have compiled these names, the breeds kept, and whether chicks, stock, or hatching eggs are for sale in season. We will be glad to furnish upon request a list of such breeders in your town or of the breeders of a given breed in the county.

Cost of Raising and Harvesting One Acre of Field Corn-1917

The ploughing was done in fine shape the last days of May. planting was not practical on account of cold. After ploughing (8 in. in depth) the land was rolled, then the fertilizer was put on with a machine spreader and harrowed twice. No fertilizer put in hills. A machine was used for checking and furrowing at same time.

The corn was backward and came up uneven, necessitating replanting in some hills and an additional amount of fertilizer spread on at the last

Planting:	
Rent (This item was given by Mr. White)	8.00
Ploughing	6.50
Rolling 2 "	
Harrowing416 "	3.66
Smooth Harrowing	1.25
Spreading fertilizer, Horse and Man3 "	1.68
· Horse and Man Checking	2.83
Man planting	4.25
Man planting	2.50
Seed:	2.00
12 qts. Longfellow Corn	1.32
Fertilizer:	1.02
1 ton Sanderson's 4-10	35,00
Replanting:	99.00
Man	1.55
Seed	
	.50
Cultivation:	9.25
Cultivated 4 times	9.29
Additional fertilizer—	6.82
4 2-5 Bags Sanderson's Corn Super-phosphate	
Man 2 days hand-hoeing and covering fertilizer	5.00
Harvesting:	0.04
Sept. 12-13, 2 Men Cutting Corn	
Man binding Corn	
Twine	
Oct. 29 to Nov. 1, 3 Men Husking in field 87 hours	
Use of Team	1.00
	\$122.25
W. W	

The Yield

Owing to the late planting, poor germination of seed, the unusual drouth from June 25 to Aug. 9, and the freeze Sept. 12-13, the result was not surprising. The stover being out right after the frost brought a larger return

i (Cuin.	
Stover in field	\$12.00
24 Bu. Best Corn @ 1.90	45.60
14 Bu. Soft Corn @ .95	13.30
14 Bu, Soft Colli (@ .05	\$70.00

The above figures from a Norfolk County grower cover in detail the cost of raising an acre of corn, and were accurately kept by the man who Although they show a loss, the reasons given are satisfactory: raised it.

 Late planting.
 Poor germination of seed. 3. Drouth June 25 to August 9. 4. Early freeze September 12, 13.

Considerable of the loss would undoubtedly have been eliminated had the seed been tested.

Home Making Department

The Fireless Cooker An Aid In Fuel Conservation

The fuel shortage of which we have been warned during the past six months has reached a crisis, and the stringent measures adopted by the Federal Fuel Administration have made us realize very keenly the necessity for the conservation of fuel. The situation demands that every individual and every concern using fuel shall reduce their requirements to the minimum, and in order to accomplish the desired results there must be a thoroughgoing cooperation of all concerned.

The war has created a demand upon the United States for one hundred million extra tons of coal this year. Although fifty million tons more coal is being mined in the United States this year than ever before, yet the increased production will not supply more than half of the increased demand. The remaining fifty million tons needed to support war activities and to keep our people warm will have to be saved shovelful by shovelful through patriotic care in American factories and homes.

The army canton vents must be heated. The munition factories must be maintained at full speed. The battleships must be coaled. The public utilities must be adequately supplied with fuel. The homes of the people must be maintained at a healthful temperature. The accomplishment of these things requires more coal than can be produced. Stretching the available amount is the only solution of the problem. The curtailment of equipment and transportation facilities, together with a shortage of labor, have brought about the present coal situation.

The waste of fuel in the household is small compared with that in public buildings, in factories, and by transportation companies, but in the aggregate it amounts to hundreds of tons a year. The Fuel Adminis-

trator has made the following appeal to the householder:

Use wood or oil instead of coal where possible.
 If the wasteful open fire must be used, burn wood in it.

3. Use fireless cookers.

4. Save electric and gas light.5. Heat as few rooms as possible.

. Learn how to run stoves and furnaces economically.

7. Keep the thermometer at 68 degrees Fahrenheit, no higher for health.

8. Save a shovelful of coal a day.

In localities where wood is abundant, the housekeeper is urged to use wood in her range. This not only conserves coal for other purposes, but at the same time reduces the amount of fuel used. In this way it can be so arranged that the cooking shall all be done at one part of the day and the fire extinguished when the cooking is done. Under these circumstances, the fireless cooker is found to be one of the most practical and economical devices to use for dishes requiring a long slow cooking. During hot weather the use of a kerosene stove and a fireless cooker is a great convenience, since it not only accomplishes a saving in fuel, but helps to keep the kitchen cooler.

The fireless cooker is one of the most practical labor saving devices for the home. It saves fuel, labor, and the housewife's time. It is a time saver, for foods cooked in it do not require watching and may be left to themselves without danger of overcooking the food. This relieves the housekeeper so that she may attend to other duties. Another advantage in the use of the fireless cooker is that it makes it possible to

utilize the cheaper cuts of meat which, although not having a fine texture or flavor, are fully as nutritious as the more expensive cuts.

The principle employed in the fireless cooker is to retain heat in food previously heated by covering the food vessel and surrounding it with some good insulating material which tends to prevent the passage of heat.

The bean holes of lumber camps, the clambakes where clams are steamed in seaweed over hot coals, and the hay box used for keeping dishes hot, are all applications of the principle of the fireless cooker.

COMMERCIAL AND HOMEMADE FIRELESS COOKERS

The commercial fireless cooker costs more than does the homemade one; on the other hand, it is likely to be more durable, it seldom has any absorbent material exposed to the odor and the steam from food, the cooking compartment can be more easily kept clean, and it is frequently provided with a ventilating valve or some such device that makes baking and roasting possible. However, the homemade fireless cooker has proved to be wholly satisfactory for such foods as cereals, vegetables, dried fruits custard, fowls, and certain cuts of meat, and can be constructed very cheaply.

There is practically no danger of fire from a homemade cooker, unless very hot radiators are used. Under no conditions can a very hot radiator above the food be safe, because it is too near the muslin of the cushion. While baking is impossible without the use of radiators, there are sufficient other processes for which the homemade cooker may be

used to warrant the trouble and the small cost of making one.

The cost of a homemade fireless cooker may range from about one dollar and a half to eight dollars or more, depending on the materials used. If several sizes of aluminum pails with clamps and covers are bought for food containers, the cost may equal that of a small commercial cooker. A very satisfactory and durable cooker can be made keeping the cost under two dollars.

DIRECTIONS FOR MAKING A FIRELESS COOKER

A fireless cooker made according to the following directions taken

from a Cornell bulletin has proved to be very satisfactory.

A wooden box, a butter firkin, a trunk, an ice box, a galvanized iron ash can, and a wooden candy-bucket are among the articles that have been successfully used in the construction of a fireless cooker. If an ordinary box is used, it should be of heavy enough material to permit the use of good hinges and fastenings.

The inside container for the food utensil may be a bucket of agate,

galvanized iron, or tin. It should have a tight-fitting cover.

Ground cork, sawdust, excelsior, mineral wool, paper torn in small pieces and crumpled, powdered asbestos, shavings, straw, hay, wool, and cotton batting are commonly used as insulators. Mineral wool and powdered asbestos are both good insulators and have the additional merit of not being inflammable; but they are harder to work with than are the other materials. Gloves should be worn by the person doing the packing, and care should be taken not to allow the material to enter the nose and the mouth. Cork is light in weight and has proved to be good. Excelsior or sawdust is good and is easily obtained. Sheet asbestos one-eighth of an inch thick has proved to be the best weight for lining the outer case and covering the inner bucket; it is more durable and efficient than is the lighter weight, and it can be made to fit the curved surfaces more easily than can the heavier weight. Cardboard may be used instead of asbestos and is less expensive.

1. Select a box, a bucket, or a can of suitable size, and line it with sheet asbestos or cardboard of one-eighth inch thickness. There should be a close-fitting cover, and this, too, should be lined with sheet asbestos.

2. Select an inner bucket or kettle with a cover and of such a size that there may be a space of at least three inches between the outer box or bucket and the inner bucket. Cover the outside of the inner bucket and its lid with sheet asbestos or cardboard of one-eighth inch thickness.

3. Pack into the bottom of the asbestos-lined outer box or bucket a layer at least three inches deep of whatever nonconducting material is to be used. If excelsior or torn paper is used, pack it down tightly. A

baseball bat is useful in pounding it down.

4. Place the asbestos-covered inner bucket on the layer of nonconducting material in the botton of the outer box or bucket, and pack the space between the outer box or bucket and the inner bucket with more of the nonconducting material, filling the space to within about one-half inch from the top of the inner bucket. Be sure that the insulating material is tightly packed down.

5. Make a collar of zinc, cardboard, or sheet asbestos, to cover the exposed surface of the insulating material. Zinc is good for this purpose because it does not tear with constant use as do the other materials, it can be washed, and it does not rust. An old piece of muslin, which can be washed frequently, may instead serve the purpose of keeping the in-

sulating material clean and in its proper place.

6. Make a cushion of such material as muslin or denim, which when filled with the nonconducting material will be at least three inches thick and will, as exactly as possible, fit into the space between the top of the inner bucket and that of the outer box or bucket. This cushion may be made by cutting out of the material two pieces of the desired shape and size, and putting them together with a straight strip of the desired width, with extra allowance for seams.

FOOD VESSEL

Any utensil which has a tightly fitting cover and which will fit the well or inner bucket may be used. The receptacle may be of tin, enamel, or aluminum ware. Aluminum is the best because it will retain heat for a longer time and is more durable.

THE CARE OF A FIRELESS COOKER

The interior of the fireless cooker should be kept absolutely clean. It should be washed, dried, and sunned, if possible, each time after being used. It should remain open for several hours after use, and it should never be tightly closed when not in use. The observance of these precautions prevents the food from acquiring an unpleasant taste from odors or remnants of food previously cooked.

THE USE OF A FIRELESS COOKER

The fireless cooker, like any other piece of equipment, should be used intelligently in order that the best results may be obtained. As previously stated, for certain cooking processes and under certain conditions it may be no more economical in fuel, time, or labor, than is the ordinary range, therefore, fireless cookery should be studied carefully by the housewife in order that she may discover its best applications. A few experiments with various kinds of foods, based on receipts adapted to the use of a fireless cooker, are necessary in order to give one the desired mastery.

The efficiency of insulation, the quantity of food, and the rapidity

of the transfer from the stove to the cooker, influence the length of time required for the cooking. The temperature to which the radiator is heated also determines to a certain extent the length of time the food should remain in the cooker. The period that gives the best results is more or less definite for each food. However, since individual tastes differ, definite statements in regard to the required time should be verified for each household.

Care should be given to correct proportions in receipts, because there is no opportunity for the evaporation of excess moisture in the cooker. Foods, such as pancakes, that require rapid cooking over a hot fire, are not well suited to the fireless-cooker method. Biscuits may be successfully baked in the cooker, but since the heat required to raise the radiators to the proper temperature will bake the buiscuits in an ordinary oven, there seems to be no justification for its use in this case. However, for foods that require long cooking in order to be made more

palatable and digestible, the fireless cooker is admirably suited.

Cereal products, such as rolled oats, cracked wheat, and hominy, give excellent results when cooked in a sufficient quantity of water in a fireless cooker. The first rapid cooking on the stove bursts the starch granules; the long-continued, slow cooking in the fireless cooker softens the fiber and completes the cooking of the starch, thereby making the

nutritive matter available for use by the body.

The tough, and consequently cheap, cuts of meat are equally as nutritions as are the more tender and more expensive cuts, but they require long cooking at a low temperature in order to be made palatable. Intense heat shrinks and hardens meat fiber. The extraction of meat juices for soup, which necessitates long cooking at a low temperature, is well accomplished in the fireless cooker. If it is desired to retain the juices in the meat, the outside of the meat should be seared for a few minutes at a high temperature; the meat should then be cooked at a temperature somewhat below the boiling point of water until it becomes tender. The meat should be thoroughly heated to the very center before being transferred to the cooker. Fowls are especially good when cooked by this long, slow method.

Steamed breads and puddings are well adapted to the fireless-cooker

method.

Hot beverages and sauces may be set aside in the cooker to be kept hot for serving.

By means of the fireless cooker frozen mixtures may be kept for

several hours without melting.

As a means of enabling one to have warm water at hand without keeping a fire, the fireless cooker is of use in homes where there is no boiler connected with the range, and especially where the fuel used is coal or wood which necessitates building a fire.

FOOD FACTS

The wheat we export from now on will be the direct amount that the people save out of their bread, for we have shipped our surplus. This means literally that everyone who saves a slice of bread is giving a slice of bread to our allies.

Every particle of diminished consumption by the American people is one particle more for the soldiers, the men, the women, and the children of our associates in the war. There is a personal obligation upon every one of us toward some individual abroad who will suffer privation to the extent of our individual negligence.

Receipts to be Used in Fireless Cookery

BEEF CASSEROLE

2 lbs. beef 2 green peppers, minced 2 tablespoons fat 1 turnip, diced

2 carrots, diced 1 cup tomato juice 1 onion, sliced Salt and pepper

Select a tough cut of meat from the neck or shank. Cut the meat into cubes. Sear it well and place in the fireless cooker kettle. Add the other ingredients and boil for five minutes. Transfer it to the cooker and allow it to remain for five hours.

PRUNE SAUCE

Wash the prunes and soak over night in twice their quantity of cold water. Boil for five minutes in the same water in which they were soaked. Remove to the fireless cooker and let it remain for four hours. No sugar need be added.

ROLLED OATS

Three cups of water, 1 teaspoon sait, 1 cup oatmeal. Carefully look over the oatmeal and remove any husks or foreign substance. Add gradually to the boiling saited water and boil rapidly for 10 minutes, stirring constantly. Put the vessel into the cooker as quickly as possible and allow to remain for about twelve hours or over night. When removed from the cooker it may have to be reheated. To do this, set the cooker pan in a pan of water over a fire. When the water boils up well, the oatmeal may be served.

MASSACHUSETTS LEADS IN FOOD CONSERVATION

The following is a copy of a letter which was sent out by Mr. Endicott, January 4:

"I am sure you will be interested to know just what we have saved in Massachusetts for the month of November in the line of meat and wheat. This saving does not take into account at all the saving made by the householders, which must be tremendous as so many of them have been closely following my request. The figures which have been handed me show that a saving has been made in the following items:

Beef	2,532,950	lhs
Lamb	242,420	"
Mutton	89,125	,,
Veal	210,345	,,
Pork	106,950	,,
Flour	926,960	,,
Sugar	124,775	"
Total meat saved	3,181,790	"
Fish consumed	3,446,335	,,

"These figures show a splendid gain over October, but, notwithstanding the fact that Massachusetts, as far as can be ascertained, is far ahead of any other State in the Union, we have got to save more as the call for foodstuffs abroad is steadily increasing even now."

Boys' and Girls' Department

Junior Extension Schools

The Extension Service of the Massachusetts Agricultural College held a series of Junior Extension schools for boys and girls in Norfolk County, during the week of January 21. The program included a talk and a demonstration of garden work by Mr. Gardner Boyd, Assistant Director of the Junior Extension Service; a demonstration on war bread, and a talk on Home Economics club work, by Miss Helen M. Norris, State Leader of Home Economics Clubs; a demonstration of poultry club work, by Mr. A. Lawrence Dean, State Poultry Club Leader; and a talk on pigs, by Mr. V. A. Rice, State Pig Club Agent. Mr. George L. Farley, Director of the Junior Extension Service, also spoke in the schools on club organization, and addressed parents and teachers on the value of club work, in several

Schools were held, through the cooperation of the Superintendent of Schools; in the following places: one at the Kimball School in Needham, schools; in the following places. One at the Medham Heights School, to about 200 pupils, and one at the Needham, and one in East Dedham, at which about 500 pupils from the Ames, Avery, Oakdale and Quincy Schools were in attendance. Mr. Farley spoke to the high school students, and Miss Norris to the Riverdale School pupils, in addition. Stoughton, one school only was held, which was attended by 350 pupils from the High and Grammar Schools. One school was held in Randolph for about 200 pupils from the high and grammar schools and one in Holbrook for about 80 grammar school children. On the same day, Mr: Farley spoke in the Avon schools. One school was held in Cohasset, when Mr. Farley spoke to teachers and adults. Mr. Farley also spoke in the Weymouth schools, and Miss Norris spoke before the girls in the South Braintree schools.

The week's program was a new departure in Junior Extension work, but excited much favorable comment from the school superintendents and teachers who came in touch with it, and won a hearty response from the boys and girls. Some two thousand children were reached, not only with a thorough explanation of what club work in general stands for, but with very definite instructions as to carrying on the work in each of the different club projects. This was supplemented with printed outlines distributed to each child, and the talks and demonstrations were illustrated with charts, diagrams, and pictures which served to bring out the various points of interest with added force. The work thus started will be followed up by the County Club Leader, who will organize and enroll the club members. At planting time, the County Agent will hold planting demonstrations to follow each of the schools already held, and during the season the County Leader will have the assistance of the specialists from the College in following up the special plans of the work.

ANNUAL SUCCESS MEETING OF NORFOLK COUNTY BOYS AND GIRLS

Saturday, January 26, about 100 boys and girls representing all sections of Norfolk County gathered at the school for the first annual meeting of the "Norfolk County Success Club", this name being adopted at the meeting.

The day's program began at 10:30 with competitive games and play. Following the games, Mr. George L. Farley, State Club Leader, outlined a type of county organization for boys' and girls' clubs, and committees

were appointed to take hold of the work.

Mr. V. A. Rice, Government Animal Husbandry Agent in charge of Pig Club work for Massachusetts, gave a short talk, emphasizing the need of being real workers, not slackers, next summer, if 1918 is to be a real "success" year.

In the afternoon, following a dinner served in the arena, the committee reports were accepted and a constitution adopted. When the county organization was completed, Mr Farley gave the first annual talk

to the club on the topic, "Success by Sticking to It."

The officers elected for the year 1918 were: President:—Elliot Smith of West Stoughton. 1st Vice President:—Harry Howard of Walpole.

2nd Vice President:—Dorothy Healy of Needham. Secretary:—Evelyn Grundstrom of South Weymouth.

Treasurer:-Anna Johnson of Stoughton.

Committees for each club, consisting of a representative from each town where the work is being done, were appointed and these committees will be extended as the work develops.

Miss Helen M. Norris, State Assistant Club Leader, in charge of girls' work, spent January 10 and 11 in Norfolk County in the interest of the

Home Economics Club.

OUR SERVICE FOR JANUARY

In January a special call has come out to the volunteer armies of the Food Administration emphasizing the opportunity to serve by refraining from the use of wheat and by using corn.
WHY?

1. Because we have exported the whole of the surplus of the wheat from this harvest after reserving to ourselves an amount sufficient for

normal consumption of seed and flour until the next harvest.

2. Corn meal, even at the present unprecedented high prices, according to a comparison of nutritive food values prepared by the United States Food Administration, continues the cheapest food found in a survey of fifty staples. There is twice as much nutritive value in a dollar's worth of corn meal, even at the prevailing high prices, as in a dollar's worth of wheat bread.

3. In Europe it has proved impossible to introduce straight corn bread, because of the lack of corn mills. The lack of durability in corn

meal does not permit its extensive shipment.

If you hear your friends complaining that the price of bread in England is less than it is in the United States, tell them that it is not made from the same flour. The English flour uses more of the wheat kernel than ours, and the English war bread includes other cereals and potatoes.

A larger difference in price comes from the fact that the British Government deliberately sells flour at a loss, subsidizing bakers to the extent of \$200,000,000 to hold down the price of bread artificially, the loss to be made up, of course, through taxation.

Russia collapsed not because of the Germans on her borders, but largely because of the failure to organize and feed her own citizens; and if we are to emerge victorious from this war, we can not risk the collapse of another of our associates in the war from this same cause. There is no waste of food across the water; there is the most drastic reduction in consumption; there is actual privation among women and children; there is starvation in Belgium.

FARM BUREAU DEPARTMENT NORFOLK COUNTY AGR. SCHOOL WALPOLE, MASS.

U. S. DEFT. OF ACR. MASS. AGR. COLLEGE CO-OPERATING

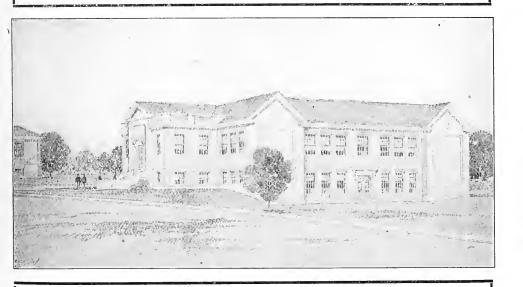
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SCHOOL STAFF

FREDERIC W. KINGMAN	.Director
CAREY W. CARRICK	.Poultry Husbandry
HORACE C. FUNK	Animal Husbandry
ANDREW N. SCHWAB	Market Gardening
CHARLES W. KEMP	.Weymouth Dept.
MARY E. SHEPARD	.Sec'y and Accountant
	CAREY W. CARRICK

FARM BUREAU DEPARTMENT

WILLARD A. MUNSON					
STELLA S. SIMONDS	Home	De	monstr	ation	Agent
JOHN T. DIZER	.Boys'	and	Girls'	Club	Leader

Timely Topics

Town Food Supply Conferences

Mr. F. B. Rice, Norfolk County Food Administrator, is arranging conferences with the town food production committees, representatives of all local organizations, and interested citizens. These conferences are for the purpose of outlining the program of the Food Administration, and to get unified and concerted action, that the best results may be obtained. Those present at these food supply conferences will then present the plan to their respective organizations. There is the greatest necessity for every person in the country to know just what the plans are and what work is to be done, in order to cooperate to the fullest extent with the Food Administration.

High School Boys for Farm Service

In response to an invitation from the State Committee on Mobilization of High School Boys for Farm Service, the superintendents of schools and high school principals of the state met Saturday, January 26, in an all day session at the State House, to discuss plans for providing boy labor on the farms the coming year. Mr. Stephen R. Dow, Secretary of the Committee, told of the successes attending the camp organization of boys in farm service last year, and pointed out the very great shortage of farm help and the willingness of the farmer to accept the right kind of high school boy. The present situation called for the heartiest cooperation of the school authorities. Director F. A. Smith of the Essex County Agricultural School proposed that the agricultural schools offer short courses this spring for high school boys without experience, so that some familiarity with common tools, machinery, and farming operations may be acquired before entering upon farm work.

Following out the suggestion of Director Smith, the Norfolk County Agricultural School, submits the following tentative plan of cooperation to the high schools of Norfolk County and other towns and cities in this vicinity:

PLAN PROPOSED FOR TRAINING BOYS FOR FARM SERVICE AT NOR-FOLK COUNTY AGRICULTURAL SCHOOL

Time: Fridays and Saturdays, commencing March 23 and continuing through the month of April.

Who may attend: Boys selected by school authorities from volunteers for farm service.

Classes: Groups of fifty for half-day sessions. Four groups each week.

Supervision: It is very much to be desired that one of the high school faculty shall accompany the boys and cooperate in helpful ways with the staff of the Agricultural School.

Transportation: The State Public Safety Committee is to be asked to meet this expense. A favorable answer is expected.

Boys wanted: Only those who have a serious purpose.

Outline of Work:

Common Tools-Nomenclature, use. Hoe, shovel, spade, rake, forks, etc.

Machinery-Study and use.

Plow, harrow, cultivator—study and use.

Sprayers.

Haying machinery-study and use.

Handling axe.

Harnessing horses and hitching to plow, wagon, tip cart. Mixing and identification of feeds and hays for stock.

Care of tools and machinery—cleaning and oiling.

Planting, thinning.

Preparation of vegetables for market.

Care of horse—feeding, watering, blanketing, grooming,

Spreading manure.

Poultry chores.

State to Let Tractors and Machinery

On January 29, 1918, a letter was mailed to the farmers and land owners of Millis, Medway, and Bellingham, stating that it is possible that the State will place in some communities in Massachusetts tractors, plows, harrows, seeders, and harvesting and threshing machinery, with experienced operators, with a view to raising more crops this year. The estimated cost for plowing and harrowing an acre of land ready for planting was given as \$6.00. Since then, this figure has been reduced by Secretary Wheeler to about \$4.50.

Any interested were asked to reply, so that those who are to locate these machinery units could know whether the demand was sufficient to warrant placing one in this locality. There have not been enough replies to show that an outfit would be used enough to pay in any of the towns so far surveyed. In order to operate one of these units efficiently, the fields to be operated will need to be in close proximity to each other, and the total acreage sufficient to keep the outfit working at maximum.

We would be pleased to hear from any group of farmers or land owners

who would like to have a unit placed in their neighborhood.

Slaughter of Hens and Pullets Restricted

There appears to be a misunderstanding in regard to the sale and We give below notice taken from the Massachusetts killing of poultry. Food Administration Bulletin:

"The following rule has been sent by the United States Food Administration to all associations and exchanges affected:

The licensee shall not, between February 11, 1918, and April 30, 1918, purchase, ship, sell, or negotiate the sale of any live or freshly killed hens or pullets provided, however, that this shall not prevent the purchase, shipment, or sale between February 11 and February 23, 1918, of hens or pullets which were either killed or shipped prior to February 11, 1918, to markets for sale as food, and provided further that nothing in this rule shall prevent the purchase, shipment, or sale of live hens or pullets for egg production purposes. Effective February 11, 1918.

"The 'licensee' above mentioned refers to a dealer or packer already licensed by the United States Food Administration. It does not mean the grower of poultry, who is exempt from license as to products of his own or leased land. Therefore, the rule does not prevent the individual

grower from selling to a customer who is himself a consumer."

From the foregoing it appears evident that there is no restriction upon using one's own poultry for home use. Furthermore, a farmer or poultryman can sell his poultry live or dressed so long as he sells it to the consumer. The restriction upon dealers is evidently to prevent the purchasing of large lots of live poultry to meet the usual spring demand for the Jewish holidays, thereby further reducing the already decreased supply of breeding stock during the breeding season. Also, it is expected that the restriction will release a large amount of cold storage poultry which should be disposed of. This restriction will not interfere with the continued culling of unprofitable birds in the flocks of farmers and poultrymen, nor does it prohibit the sale of stock for breeding or egg production purposes.

HATCH EARLY

Again we want to call attention to the importance of early hatching. Each year hundreds of birds are reared which are kept at a loss because they are hatched too late. The early hatched birds are more vigorous, grow faster, produce early broilers which bring highest prices, lay early in the fall when eggs are high, resist disease, and stand hot weather well. The general purpose breeds, such as Rhode Island Reds, Plymouth Rocks, and Wyandottes, should be hatched during March and April, preferably from March 15th to April 15th. It is doubtful if hatching these breeds later than May 1st will be profitable. Leghorns may be hatched in April or May, since they mature more rapidly.

Arrangements for hatching eggs, chicks, and custom hatching, should be made at once, since they will be difficult to secure on short notice.

REPAIRING MACHINERY

Before very long, spring will be here—at least we hope so—and the land will be in condition to get ready for planting. It is necessary then that we see to it that our tools and machinery are ready when the work begins, so that we will not have to waste any time looking for missing parts or find that some part is broken or loose, or that another part is so rusty that it will not work well.

Perhaps the harnesses need repairing, the double or single trees may be broken, the harrows may not be in good condition, we may have misplaced the hoes or spading fork. Let us attend to these things before the work begins. It is especially important with the present scarcity of labor that the machinery be in such condition that it will give us the best possible service with the least amount of time spent on repairing when this time can ill be spared.

NORFOLK COUNTY FOOD PRODUCTION AND CONSERVATION MEETING

On Saturday, February 9, the Norfolk County meeting in the interest of food production, conservation, and preservation, was held at the Agricultural School. The morning was devoted to sectional meetings where definite plans were presented for the spring and summer campaign.

In the food production section, Mr. S. R. Parker, State County Agent Leader, spoke of the importance of finding out just what is needed in each community, and how much can be produced this year. His suggestion was that members of the town committees see each farmer to find out how much he produced last year, and try to induce him to increase his acreage this year. Mr. John D. Willard, speaking for the State Food Production Committee, outlined the plans of that committee. He urged the farmers to plant more of such crops as require a minimum of labor (corn, oats, barley, rye,

wheat, and buckwheat); to produce a potato crop equal to that of 1917; to grow more forage crops and proteins for stock feed. In garden production, an increase of the substantial food products was recommended. Mr. Willard also urged a greater production of swine, sheep, and poultry, the latter through an increased number of backyard flocks. There is especial need this year to purchase all supplies early, and Mr. Willard advised consolidating orders where possible to secure car load shipments. The State Committee is trying to aid the farmers by providing heavy machinery to be used cooperatively, and is also making an effort to help in securing labor. Mr. Munson, the County Agricultural Agent, outlined the work of the community markets during the season of 1917, and urged their further development this year, especially in towns of more than 10,000 population. For the smaller towns, Mr. Munson recommended the community exchange.

About eighty women were present in the conservation section and they showed much interest in cooperating to carry out the program suggested. Miss Comstock, the State Home Demonstration Agent, told how the individual home could be reached with the message of food conservation; Mrs. H. W. Dresser, from the National Civic Federation, spoke on meal planning under present conditions; Mrs. Malcolm Donald, from the same organization, talked about Food Thrift Centres, and told especially of the work in Brookline; Miss Simonds, the Home Demonstration Agent, presented to the women a plan for food conservation work in Norfolk County for the next

three months.

The school superintendents' section discussed plans for the mobilization of high school boys for farm service, and considered plans proposed by Mr. Kingman for sending boys to the Agricultural School for five or six days training.

The afternoon meeting was held in the arena, and was attended by about one hundred and twenty-five people. The speakers were Dean Yeomans of Harvard, Mr. John D. Willard, Secretary of the Massachusetts Food Production and Conservation Committee, and Mr. Fred B. Rice, food administrator for Norfolk County. Emphasis was placed upon the need for unity of effort on the part of everyone. Dean Yeomans urged the enlisting of the efforts of every individual in this country to back the war. Hepointed out that we need to organize our country on a war basis, and match an American man against every German man, an American woman against every German woman, and an American child against every German child. The facts must be plainly set before the people. Those present at this meeting are depended upon to take the message home to their individual communities, and to urge the people of Norfolk County to produce and conserve an abundant food supply for 1918.

RECENT POULTRY MEETING HELD AT SCHOOL

The poultry meeting held in the Agricultural School on the afternoon of February 8 was attended by about one hundred and twenty-five people. Professor A. G. Lunn from the Massachusetts Agricultural College, and Mr. Edward Brown, of London, England, who is president of the International Association of Instructors and Investigators in Poultry Husbandry, were the speakers.

Professor Lunn told us some of the benefits to be derived from the organization of local poultry associations. There are about thirty-five poultry associations in the state at the present time. A few of them, made up almost entirely of men who are making a living from poultry keeping, are well organized and active. They prepare annual programs, assigning subjects in advance to committees from the membership. These committees make reports on problems that they have worked out on their own places, and all take a personal interest in the discussions. Experts from the col-

lege are sometimes present to take part in the discussions, all working together in a helpful cooperative way. The war time conditions have shown us that a careful study of the industry is much needed, in order to place it on a firm business basis. Mr. Lunn suggested that cooperative buying might help solve the problem. Plymouth County has an active poultry association. Would not one be helpful to the poultry keepers of Norfolk County?

Mr. Brown was sent by the International Fraternity of Poultry Keepers to urge increased production of poultry in the United States, in order to meet the demand which is sure to come at the close of the war. The association is making arrangements for large quantities of stock to be shipped in bulk to restock the poultry farms of Europe when the war is over. The demand, he said, will be chiefly for pure-bred laying stock. In England, many of the people have been able to keep their poultry stock under war time conditions by growing green food and succulence, by providing free range, and by the utilization of table scraps.

EXTENSION SCHOOL ON FOOD CONSERVATION HELD IN HOLBROOK

A two day extension school on food conservation was held in Holbrook, February 19 and 20. Eight talks and demonstrations pertaining to the present food situation were given, and were well attended by the local people. It was arranged with a talk and a demonstration each session, the morning session running from 9:15 to 11:30, and the afternoon session from 1:15 to 4. There was an average attendance of 56 women, over fifty per cent of the women attending every session. We feel that the success of the school was due largely to the very complete arrangements made and to the publicity given to the school by the local Woman's Food Conservation Committee.

Agricultural Department Time to Prune Fruit Trees

At this time of the year we should not forget the pruning of the fruit trees. If they are pruned each year, the job is easy. But if they are allowed to go for several seasons without having the cross and interfering branches taken out, the diseased wood removed, and small branches thinned from the bearing wood of the larger main limbs, then it is a more difficult task. The longer it is delayed, the harder it becomes to put the trees in condition so that the best fruit will be grown.

The only correct way of pruning a tree is to start the year it is set out, and then give it attention each year, thus making a minimum amount of pruning necessary at one time. Even if the owner thinks the trees are not in need of pruning, it is always worth while to give them a good inspection and make pretty definite plans regarding the care for the season. The pruner will be able to notice the needs of each tree as to its growth, forming of the head, etc.; also diseases or insects, such as the San Jose Scale, may be detected when working among the branches. Such conditions in individual trees may be noted as discovered, and plans can be made to correct the trouble.

Success in fruit raising comes only by continued study and painstaking practice, year after year.

Start Spraying for San Jose Scale and Peach Leaf Curl

Those who have dormant spraying to be done on their fruit trees should begin at once, and avail themselves of every warm quiet day in order to get the work of fighting the San Jose Scale and Peach Leaf Curl well under way before the season is so far along that time will be too limited to do it thoroughly. A thorough application of one part of commercial lime and sulphur solution mixed with nine parts of water, will kill scale on fruit trees and control the leaf curl on peach trees. Thorough spraying means that every portion of the bark of the tree, from trunk to the tips of the branches, should be covered.

The San Jose Scale is about the size of the head of a pin, and the spore which is the seed of the fungus is microscopic in size. Any area of bark on a fruit tree may be infected with San Jose Scale, and if an area no larger than the head of a pin is uncovered with lime sulphur solution, a live scale may be left to multiply into a million insects during the symmer. Any portion of the surface of a bud on a peach tree may furnish a place of entrance for the spore of the peach leaf curl fungus, if left uncovered by lime

and sulphur.

To have healthy fruit trees, it is as necessary to apply the dormant spray as it is to prune, fertilize, and cultivate.

Ordering Fruit Trees

After having selected the orchard site with due regard to weather and soil conditions, the stock should be purchased. As much thought and attention is required when ordering fruit trees as is needed in their setting and care after setting. Having decided on the varieties and the number of trees to buy, you should get your order in early so you can plant them as soon as the soil can be worked. In ordering keep in mind the fact that cheap priced trees are seldom cheap in the end, for the varieties are often different from what you ordered, and so are of little use to you.

The kind of tree to order is one not over two years old, with a well developed root system, free from disease, and of a variety known to be in demand on the market, or that will be used and liked by the individual family in case of small plantings for a home plot. Two-year trees in some cases are preferable to one-year trees, although the latter are used extensively and give good results. Order all trees now from a reliable nurseryman whose reputation has been established, and whose future business depends

on the quality of his stock.

Testing Seed Corn

It is very important that all the corn we use for seed should be from healthy vigorous ears. If one or two ears have been frosted or were immature when picked, so that the kernels from them will not sprout, it will mean a considerable loss in yield, or at least extra labor in replanting. In order to be sure to secure only good seed, it is necessary to test the corn.

There are several methods of doing this very cheaply and with little loss of time. Probably the easiest is what is called the "rag doll" test. In this, a piece of Canton fiannel about two and a half to three feet long and ten to twelve inches wide is marked off into two-inch squares. There will

be three lines of squares, with a margin of two to three inches on each side and about three inches on each end. Number each square. From different parts of each ear pick five or six kernels, place these in a square and number the ear to correspond to the square. After the "doll" is full of kernels, carefully roll it up, tie it at both ends, and set it on end in a pail in which there is a half inch of lukewarm water. Keep this in a warm room, renewing the water as necessary. At the end of about seven days the test should be completed. Unroll the "doll" and examine the germination. Those ears from which the kernels have not sprouted or have sprouted very poorly should be discarded, as the kernels from them would also do very poorly in the field if used for seed.

Another method is to pack sawdust, wet with lukewarm water, into a box about four inches deep. On top of this nail a piece of damp cloth that has been marked into two or two and a half inch squares. In these squares, place the kernels as in the previous method. Cover them with a damp cloth. On top of this place a cloth about eighteen inches larger on all sides than the box. On this place some warm moist sawdust, and pack down well. Fold the rest of the cloth b ck over the sawdust. Keep the box in a fairly warm room. As in the previous test, this will require about seven days. Care must be taken in rolling back the cloth, so as not to dis-

turb the kernels.

Either of these tests or variations of them are satisfactory, and will insure the corn grower good seed. In some states, particularly in Iowa, the yield of corn has been very materially increased through the proper selec-

tion and testing of seed corn.

It might be well to mention here that it is always best to use seed corn that has been grown in the locality. A large number of experiments have shown that corn from other sections does not yield as well, at least for the first few years, as locally grown corn.

HOME GARDEN COURSES STARTED

The home gardener is again showing the desire for information that will help him in getting the most from his efforts in the garden. The Market Garden Department of the Agricultural School has already scheduled eleven talks and demonstrations on subjects pertaining to the home garden.

There are some persons who may have yet to find a way to be of service in furthering the nation's war program. The opportunity which the home garden offers toward providing the family with more of its food and thereby relieving the necessity for bringing it to town over an already overtaxed transportation system, should not be neglected by any who are equipped with good land and ability to plant and care for a garden.

The State Food Production Committee is anxious to have the home garden produce and supply the operator's family with all it can use during the season, and a surplus for canning, but it wishes to caution against attempts

to raise vegetables on unsuitable land and unwise selection of crops.

The home gardener should not raise produce for the purpose of selling in competition with the commercial truck growers, as they will offer their surplus to cities and thickly populated sections where home gardening is necessarily limited. Some home gardeners will be able to sell produce profitably, but the majority will meet disappointment if they enter into competition with men who have made it their life business. The home gardener should make his garden do war service by making it furnish food for the family at home.

Produce all the garden stuff that can be eaten or canned or stored for winter use in the home, but no more. It won't help much toward winning the war if quantities of vegetables are produced to an extent that will glut local markets. It will mean transportation for something that is going to

be wasted after it has taken up the space that should have been allotted to needed materials. The same thing happens if you are in a position to raise some of your food and don't do it, for then shipping facilities needed for other things will have to be used to bring it to you.

GREEN FOOD FOR POULTRY

Now is the time to plan for growing green food for poultry. Green food is necessary for best results for growing young stock and for laying hens. It furnishes mineral matter and acts as an appetizer. Plenty of succulence will decrease the amount of grain consumed and thereby cheapen the ration. Dwarf Essex rape and mangels—Mammoth Long Red variety—should be grown even where there is a small flock of poultry kept.

Rape grows quickly, being ready to cut in six to eight weeks. It is sown in May, June or July. If the crown is not cut off, the plant will continue to throw out a new growth, and several cuttings may be obtained during the summer. A few rows will give an abundant supply of good green food for the growing stock. If fed to hens, it gives a dark color to the yolks of the eggs, but otherwise has good effects. The culture of rape is similar

to kale.

The mangel is a very economical winter green food. They produce well, keep well, and the hens like them. The average yield in this section is ten to twelve tons per acre. We should grow about ten pounds for each hen we expect to winter. They also make a good feed for cows. Mangels are best grown in drills two and a half feet apart and thinned to about six inches apart.

Rape and mangel seed should be secured at once, since there is likely

to be a scarcity and high prices will prevail.

REGARDING THE PURCHASE OF WHEAT

There seems to be a misunderstanding regarding the purchase of wheat for poultry feeding. The United States Food Administration has ruled that wheat cannot be sold separately. Wheat is being conserved for the army and for export to the Allies. It is easier to ship and more valuable as a human food than many other grains.

In order that all poultry feeders can have some wheat in the ration, a ten per cent allotment in a grain mixture is allowed. The grain dealer is allowed to make any mixture of grain the poultryman may order, provided he does not order more than ten per cent wheat in it. The cost of mixing and bagging by the dealer is given as ten cents per hundred in one thousand pound lots. The cost for mixing smaller lots would be a little more.

Mash constituents for the "Standard War Ration" can be purchased separately. The "Standardized War Ration" will cost about \$3.80 per hundred-weight for materials at retail, plus about ten cents a bag for mixing, according to local prices quoted today. The dry mash will cost about \$3.20 per hundredweight for materials. The local prices used are as follows for 100 pounds:

Cracked Corn Feed Wheat Oats	$ \begin{array}{r} 4.00 \\ 4.35 \\ 3.30 \end{array} $	Hominy Feed Gluten Feed Ground Oats	3.50 3.00 3.45
Barley Wheat Bran Wheat Middlings	3.50 2.40 2.50	Meat Scrap Dried Brewers' Grains	$\frac{4.25}{2.82}$

A modification of the mash ration replacing 25 pounds of the beef scrap with 25 pounds of dried brewers' grains and changing the scratch grain to: cracked corn 300 lbs., oats 250 lbs., barley 450 lbs., omitting the wheat, will at the above prices, cost for dry mash ingredients about \$3.10 per hundredweight, and about \$3.70 for scratch feed after allowing ten cents per hundredweight for mixing. For years, in the Pacific Coast States, barley, which has the same feeding value as wheat, has been wholly substituted with as good results. The modified "War Ration" is as follows.

Scratch Feed 300 lbs. Cracked Corn 100 lbs. 250 lbs. Oats 100 lbs. Wheat Bran 100 lbs. Ground Oats 450 lbs. Barley 100 lbs. Wheat Midds 75 lbs. Beef Scraps 450 lbs. Barley 100 lbs. Hominy Feed 25 lbs. Dried Brewers'

Gluten Feed

Shortage, irregular supply, and prices of feedstuffs make it necessary to frequently change the ration at present. These changes should be made

intelligently rather than by guess or in a haphazard way.

100 lbs.

We have some tables of analyses of digestible nutrients of the common poultry feeds by which one can tell fairly well what substitutions can safely be made in the ration. These may be had upon application to the Poultry Department, Norfolk County Agricultural School, Walpole.

FOR SALE

20 tons extra English hay.

T. Parker Colby, Rockville, Mass.

One 240 egg Prairie State Incubator and one Standard Cyphers 240 egg size. Price \$12.50 each. Six 50 chick and one 75 chick brooders, \$10.00 and \$13.50 respectively. All in good condition. Reason for selling—putting in larger equipment. All prices F. O. B. Stoughton.

Seth Harlow, Route No. 1, Canton, Mass.

One 240 egg Prairie State Incubator, used only once. Price \$20. Machine in good condition.

Apply to Edward E. Adams, Millis, Mass.

Three Cyphers outdoor brooders equipped with adaptable hovers, in good condition. Price, \$9 each or \$25 for the three. Cost when new \$17 each. Apply to W. B. Southworth, West Stoughton.

Home Making Department Making Use of the Potato

Conservation of food does not mean eating less than is necessary for good health and full strength, but it does mean using more of our locally grown foods, and substituting other foods for the four staples meat, wheat, fats, and sugar that we must ship to our armies. We have been too apt to overlook our plentiful, home-grown foods in search for the unusual, imported foods. Our impaired transportation facilities have made it difficult, if not impossible, to depend upon other than our local foods. As a result of this condition we are, fortunately, going to use our New England products more extensively, and know a greater use for them.

One of our most common and plentiful crops is the Irish potato, used daily on our tables, but not to its fullest extent. The potato crop in the

United States this last year was above normal. We have not had a surplus of potatoes on our markets this winter as they have been held back in storage. They are being released at the present time, and as soon as shipping accommodations will allow they will come into our markets in abundance. It is essential that we use these potatoes before the new crop comes in. The farmers were urged last year to produce unusually large crops of potatoes. If we allow any of these to go to waste it will serve as a discouragement to farmers, and they will not be willing to respond this year to a repeated request for increased potato production.

The potato is a splendid food, and excellent for our bodies. It serves as fuel in our bodies. It furnishes starch which burns in the muscles, giving power to work, much as the gasoline burns in an automobile engine to make the car go. One medium sized potato gives as much starch as two slices of bread. When potatoes are served for a meal, less bread is needed. Potatoes can save wheat. Many of us have failed to appreciate the potato as an extremely valuable source of mineral salts. These salts are necessary to build and renew all the parts of our bodies and to keep them in order.

An old king is said to have tested each cook before hiring him by asking him to boil a potato. Even the best potato can be spoiled by a poor

cook.

To boil them, so that they will be "fit for a king", drop the unpeeled potatoes into boiling salted water and cook twenty to thirty minutes. Drain the water off at once. If they are cooked too long or allowed to stand in the water they get soggy. If you peel the potatoes before cooking them you will waste time and potatoes both. You may throw away a sixth or even a quarter of the good part of the potato with the skins. Also, if the potatoes are not covered up by the skins while cooking, some of the valuable material will soak out into the water. Even very small potatoes can be economically used, if they are boiled in their skins.

Let us show our patriotism by using more potatoes in our meals, and let us satisfy our families by serving them in a variety of ways. Have you

used potatoes in these ways?

Corn Meal and Potato Muffins

2 T. fat 1 c. mashed potato 1 T. sugar 1 c. corn meal 4 t. baking powder 1 egg well beaten 1 c. milk 1 t. salt

Mix in order given. Bake 40 minutes in a hot oven. This makes 12 muffins. They are delicious.

Raised Potato Bread

1 T. shortening 1 c. mashed potato 1½ T. sugar 14 yeast cake dissolved in 2 T. lukewarm water 1/2 T. salt ½ c. scalded milk 2 c. white flour

To the shortening, sugar, salt, and potato, add the milk; when lukewarm add the dissolved yeast. Gradually knead in all the flour, though the dough will be very stiff. Let rise until it doubles its bulk. Again knead, put into greased pan. Let rise until loaf doubles its bulk. Bake about 50 minutes.

Cottage Pie

1 c. chopped meat 1-3 c. hot milk 1 c. hot gravy or 1 c. hot water 1 T. drippings and 1 t. vegex a few grains celery salt 2 c. hot mashed potato √ ½ t. pepper

½ t. salt

Put the meat in an earthen dish, add salt and pepper to taste and hot gravy. Mix the remaining ingredients with the mashed potato and spread on top of meat. Bake in a hot oven until potato is brown.

Codfish Loaf

1 c. salt codfish cut up in small pieces and put in cold water. Bring to the boiling point, add one quart sliced potatoes, and boil until soft. Mash fish and potato together, add 2 T. oleomargarine or salt pork fat. Add egg and mix thoroughly. Bake in buttered dish until browned. Serve with white sauce and garnish with sliced hard boiled eggs.

Baked Eggs with Pimento Potatoes

To 2 c. hot riced potato, add 2 T. oleomargarine, 1-3 c. milk, and ½ t. salt. Beat vigorously with a fork. Add 2 canned pimentoes forced through a strainer, and continue the beating until the mixture is thoroughly blended. Pile evenly on a shallow buttered baking dish, and make four cavities. In each cavity slip a raw egg, and bake until eggs are set. Serve hot.

Potato Soup

2 c. hot riced or mashed potato
1 qt. milk
2 slices onion
3 T. oleomargarine
1 T. corn starch
1½ t. salt
pepper
1½ t. paprika
1 t. chopped parsley

Scald the milk with the onion; add the milk slowly to the potatoes. Melt the oleomargarine, add to it the dry ingredients; stir the mixture until it is well blended. Add this to the liquid mixture, stirring constantly, and cook the soup for ten minutes. Strain if necessary. Add the parsley and serve.

Appledore Soup

The ordinary potato soup may be varied by following the above receipt, but omitting the parsley and adding 3 T. of tomato catsup just before serving.

Delmonico Potatoes

2 c. boiled diced potatoes
1 c. crumbs oiled with oleomargarine
2 c. white sauce
4 boiled eggs sliced
Parsley

Arrange diced potatoes, diced carrots, and slices of cold boiled eggs in a buttered baking dish in alternate layers. Cover each layer with white sauce and sprinkle with finely chopped parsley. Add crumbs to top layer and bake in a hot oven about 15 minutes, or until the crumbs are well browned.

Potato Sausages

1 c. mashed potatoes
1½ t. salt
1 c. ground nuts, fish, or meat
1½ t. pepper

1 egg, well beaten Salt pork, bacon, or other fat

Mix the mashed potatoes and seasonings with the ground nuts, fish, or meat. Add beaten egg. Form into little cakes or sausages, roll in flour and place in greased pan with a small piece of fat or salt pork on each sausage. Bake in a fairly hot oven until brown.

Potatoes are Good in Cake

They are often used in this way to keep the cake from drying out quickly. Mash the potatoes and beat up with milk until very light. You can use your usual cake receipt, substituting one cup of mashed potatoes for one-half cup of milk and one-half cup of flour.

OUR CONSERVATION PROGRAM

Monday Wheatless Day, Meatless Breakfast

Tuesday Meatless and Porkless Day, Wheatless evening meal

Wednesday Wheatless Day, Meatless Breakfast

Thursday Meatless Breakfast, Wheatless Evening Meal Friday

Meatless Day, Wheatless Evening Meal Porkless Day, Meatless Breakfast, Wheatless Evening Meal Saturday

Meatless Breakfast, Wheatless Evening Meal Sunday

ON WHEATLESS DAYS AND WHEATLESS MEALS

Do NOT Use USE

Wheat flour Corn meal and corn flour

Graham flour Hominy Entire Wheat flour Oatmeal Wheatina Potatoes Cracked Wheat Barley Quaker Puffed Wheat Buckwheat

Macaroni Rice

Puffed Rice Spaghetti' Flaked Rice Ralston Wheat Food Shredded Wheat Corn Flakes Petijohn Corn Puffs

Grape Nuts Dired Hulled Corn

Malt

ON MEATLESS DAYS AND MEATLESS MEALS

Do NOT use USE

Beef Poultry Pork Fish Lamb Rabbits Mutton Sea Foods Sausage Cheese Ham Eggs

Lard Nuts

Peas and Beans

SAVE SUGAR EVERY DAY

By NOT using By USING

Granulated Sugar Honey Confectioners' Sugar Maple Syrup Brown Sugar Corn Syrup Candies made from sugar Molasses

Frosted Cakes Dried Fruits Fresh Fruits

SAVE FATS EVERY DAY, ESPECIALLY ANIMAL FATS

By NOT using By USING

Any fat extravagantly

Vegetable Oils Lard or butter for cooking Mazola (Corn Oil) Bacon Wesson (Cottonseed Oil)

Salt Pork Beef Drippings Many fried dishes Chicken Fat

Clarified Meat Fats

Cottolene

FOOD FACTS

Mr. Endicott issued the following statement in his last bulletin: "Until March 3, rye flour may be used as a wheat flour substitute, but will not be permitted after that date."

Do you know these bulletins? Write the Home Demonstration Agent for a set.

- 1. Start the Day Right with a Good Breakfast.
 - 2. Do you know Corn Meal?
- 3. A Whole Dinner in one Dish
- 4. Choose your Food Wisely
- 5. Make a little Meat go a Long Way
- 6. Do you know Oatmeal?
- 7. Food for your Children
- 8. Instead of Meat
- 9. Vegetables for Winter
- 10. Plenty of Potatoes

PRESERVATION OF EGGS

March is the month when eggs are lowest in price and best in quality for preserving. Water-glass or sodium silicate is a satisfactory and simple method of preserving eggs for home use. This material can be purchased from drug stores, grain dealers, poultry supply companies, and general stores. The per dozen cost is slight. Eggs, may be preserved for a year and yet be sufficiently fresh for cooking.

Secure clean, fresh, infertile or sterile eggs. Infertile eggs—those produced by hens without the presence of male birds—are considered best since there is never any chick development in such eggs, and if slightly heated there would be no tissue formed to decay and spoil the egg.

A cool, dry, dark cellar, free from rats, is a good place to store them. The temperature should not go over sixty degrees Fahrenheit nor low enough to freeze the eggs. Clean stone jars or galvanized iron cans make the most satisfactory containers. If water glass is used, it should be diluted in water which has been boiled and allowed to cool. The exact proportion cannot be definitely stated as the water glass varies in density. However, the general proportion given is one part of water glass to nine parts of water. The mixture should be sufficiently heavy to allow the egg to pass leisurely down through the liquid. Place the eggs in this solution taking care that none are dirty or cracked. Keep an inch of solution over the eggs. Cover the jars to prevent evaporation.

If you do not have hens of your own, now is the time to engage the quantity wanted, since after March eggs increase in price and decrease in quality.

Boys' and Girls' Club Department

POULTRY CLUB

Poultry Club members in the Winter Egg Laying Contest have been learning what not to do, as well as what they should do. The following quotation from one boy shows this. He writes: "My hens are not laying yet, and as this is an egg laying contest, I haven't much show except for the 'booby' prize. Next year, though, when I enter the contest again, I will have chickens that were hatched in March and not in May as mine were this year." Another boy says "I went out skating Saturday afternoon and forgot to feed my hens, and didn't get up 'till late Sunday morning, so my hens had no water, breakfast, or supper except their dry mash. That week I got 22 eggs less than the week before (14 hens), so my skating trip cost me about \$1.50. Now when I go near the hen house the hens seem to say to me, 'No supper, no eggs', and they get their supper on time."

PIG CLUB

Pig Club members from last year are already asking about pigs for spring and now is the time to start looking them up. March pigs, for the Pig Club, have proven the most satisfactory as they still come under the head of "spring pigs" but are old enough early in May to be transferred to the club member's pen and become settled there before the contest starts June 1st.

The demand for small pigs will be great unless the prices go extremely high, and there has been talk of bringing in large numbers from other states. There are many farmers, however, who bred one or two sows this winter instead of killing them for market, and these will add to the local supply.

Trust companies that financed the pig clubs last year are preparing for a larger demand this year, and several other banks and trust companies are considering advancing money to pig club members on their notes.

Have you planned your garden yet? This is a question for all garden club members and for gardeners in general. If you haven't planned your garden, bought your seed, ordered your fertilizer, etc., the sooner it is done the better, or you may be disappointed. Some seeds are very scarce; shipments are slow and uncertain, so, like the early bird, the early planner will be more sure of getting what he wants.

HOME ECONOMICS CLUB

Thirty-three clubs in fifteen towns, with a total membership of over 700, is the present standing of the Home Economics Club in Norfolk County.

Quality of work, rather than numbers, was the object sought for when the club was started, but when the work was explained in the schools it was impossible to keep the enrollment down. To keep the quality of the work up, however, and to help the local leaders in handling the clubs, Miss Blanche S. Brennenstuhl, Domestic Science teacher in the Braintree High School, is giving her afternoons to meeting with the various clubs—conducting demonstrations, giving sewing lessons, etc.

The towns where the work is being carried on are: Braintree, Canton, Cohasset, Dedham, Foxboro, Holbrook, Medfield, Medway, Millis, Needham, Norfolk, Plainville, Randolph, Stoughton, Weymouth.

It has turned out that the forces that fight for freedom, the freedom of men all over the world as well as our own, depend upon us in an extraordinary and unexpected degree for sustenance, for the supply of the materials by which men are to live and to fight, and it will be our glory when the war is over that we have supplied those materials and supplied them abundantly, and it will be all the more glory because in supplying them we have made our supreme effort and sacrifice.

President Wilson.

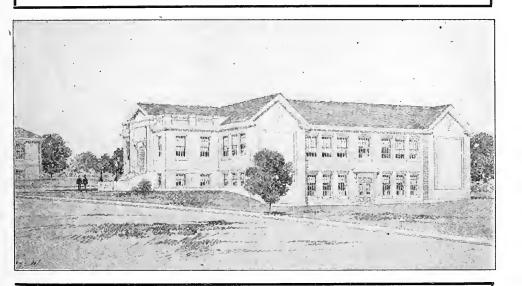
NORFOLK COUNTY AGRICULTURAL AND HOME MAKING BULLETIN

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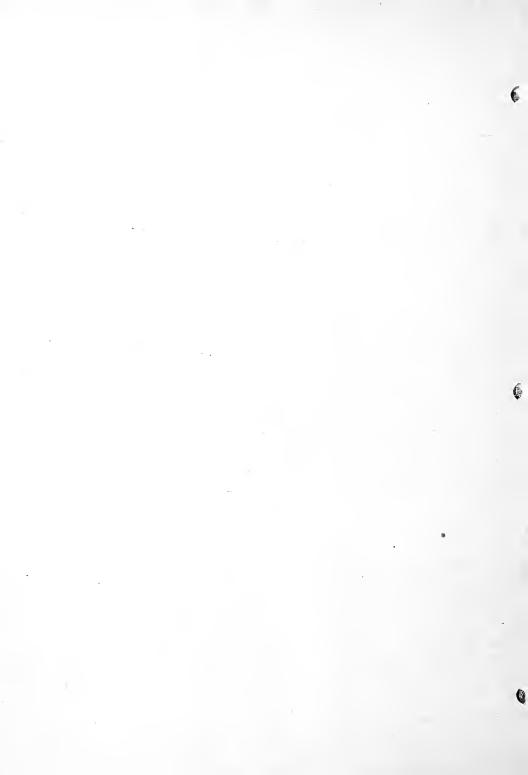
PUBLISHED BY THE NORFOLK COUNTY AGRICULTURAL SCHOOL, WALPOLE, MASS.

SCHOOL STAFF

FREDERIC W. KINGMAN	.Director
CAREY W. CARRICK	.Poultry Husbandry
HORACE C. FUNK	.Animal Husbandry
ANDREW N. SCHWAB	Market Gardening
CHARLES W. KEMP	.Weymouth Dept.
MARY E. SHEPARD	.Sec'y and Accountant

FARM BUREAU DEPARTMENT

WILLARD A. MUNSON	County Agricultural Agent
STELLA S. SIMONDS	
JOHN T. DIZER	Boys' and Girls' Club Leader



Timely Topics

"United We Stand, Divided We Fall"

Are you interested in the Norfolk County Agricultural School? Are you doing what you can to bring the school and its activities to the attention of the people in your community, especially to the young men and young women of your acquaintance?

You may not realize that in spite of the splendid start that the school made last year, it is now facing obstacles that are difficult to overcome without the heartiest cooperation. The war has cut down the attendance one third, and has shortened the time spent at the school from six weeks to two months. The school is competing with high priced labor, both industrial and agricultural. We are finding it difficult to convince the students that the rewards of attending an agricultural school are comparable to those of industrial or commercial pursuits in war time. An immediate labor income of abnormal size is a powerful incentive to cut short a boy's school life. To counteract such an influence, there must be a strong interest in the courses offered by the school, a clear conception of the larger money value of specialized training and whole hearted encouragement from the parents and friends to remain in school.

The importance of the farmer in our economic life is being recognized now as never before, and it is to be hoped that social recognition equal to that of people in other callings will not be deferred much longer. We are looking to the friends of the Norfolk County Agricultural School to do their part in removing some of the long standing prejudices against farming as a vocation. We are ushering in a new order and we must have at this juncture the zeal of the reformer.

Talk with boys and girls about their choice of a life work. learn of any who are interested in country life, tell them about this institution and the opportunities which it affords for specialized farm training and general education. If you are not as well informed yourself as you would like to be, visit the school and learn at first hand from the director and teaching staff. If you can not visit, confer with the members of the school's advisory committees and superintendent of schools in your Send for the new catalogue, which is about ready to come own town. from the press. The school authorities of your town will be glad to cooperate with you in selecting students who are qualified to attend the Agricultural School. You will find that most school superintendents in these days are more concerned about placing boys and girls in schools where they ought to be, than in retaining them in their own school systems regardless of their ability to meet the students' needs.

Remember that the Agricultural School is your school. Your town helps to support it. Young people from your town should share in the school's advantages. You need the school's help. The school needs your help. We shall go forward in spite of the war if we are united. "United we stand, divided we fall."

Pomona Grange Meeting At Agricultural School

The next meeting of Norfolk Pomona Grange No. 27 will be held at the Agricultural School, Friday, April 26. The program will be provided

by teachers and students. It is expected that Professor Hermann, the school's instructor in physical training, will be present to direct the exercises in this important department of education.

The meeting begins at 11:00 A. M.

All granges in Norfolk County are cordially invited to attend.

Short Courses At Braintree Beginning March 27, 1918

POULTRY TALKS

(To be given by C. W. Carrick, in charge of the Poultry Department of the Norfolk County Agricultural School)

- Incubation and Brooding, Wednesday, March 27.
 Feeding Poultry, Wednesday, April 3.
 Poultry Housing, Wednesday, April 10.
 Sanitation and Management, Wednesday, April 17.

GARDEN TALKS

(To be given by A. N. Schwab, in charge of Market Garden Department of the Norfolk County Agricultural School.)

- 1. Planning and Planting the Garden—Seed Bed, Wednesday, March 27.
- 2. Fertilizers and Manures. Composting. Transplanting and Thinning, Wednesday, April 3.
 - 3. Cultural Directions for Various Crops, Wednesday, April 10.
 - 4. Insects and Diseases, Wednesday, April 17.

These courses are open to the public. No charge for admission.

The meetings will be held at the Hollis School, Braintree, at 8 P. M. on Wednesday evenings, commencing March 27 and continuing for four weeks.

For Sale

Baby Chicks: Single Comb Rhode Island Reds, \$22.00 per hundred.

Also Prairie State Universal Hovers used only one season, in good condition, half price.

George Hagopian, R. F. D. 120, Taunton Street, Wrentham, Mass.

Hatching Eggs For Sale

We have a limited number of Single Comb Rhode Island Red and White Plymouth Rock hatching eggs for sale. These eggs are from pullet and cockerel pens. The price is \$1.25 for 15 eggs.

Poultry Department, Norfolk County Agricultural School, Walpole, Mass. Rhode Island Red hatching eggs from good stock. Prices: \$1.00 for 13, \$7.00 for 100 eggs.

August Scherer, Walpole, Mass.

Hatching eggs from strain of Rhode Island Reds which were prize winners at the Storrs Egg Laying Contest. Can supply a limited number at \$1.50 for 15. Apply to Everett Harper, Stoughton, Mass.

Agricultural Department Wood Ashes

Because of the coal shortage, much wood has been used for fuel this winter, and consequently many people have wood ashes which are very valuable to the land. Hard wood ashes contain about four to eight percent potash and about thirty percent lime, provided they have been free from the leaching effect of the rains. The lime in ashes will benefit most soils, as most of our soils are slightly acid, especially if not under a high state of cultivation. Lime corrects this acid condition in the soil, and it is important that this condition be corrected, as most vegetables will not do their best on acid soils. The potash in the ashes is especially valuable at this time when this plant food, which before the war came mainly from Germany, is so high in value and difficult to obtain.

Wood ashes may be profitably applied at the rate of 1000 to 2000 pounds per acre. They should be put on after the land is plowed, and harrowed in. Do not mix wood ashes with manures. By mixing wood ashes with manures, the ammonia is set free and passes off in the air. This is the most valuable of the fertilizing constitutents, so its loss should be guarded against. Wood ashes are valuable to corn, beans and most garden vegetables. Potatoes are apt to be more susceptible to scab if wood ashes are added to the soil, especially if the disease is in the soil or scabby potatoes are used which have not been treated

with formalin.

Treating Seed Potatoes

Now is the time to treat seed potatoes if there are any indications that scab or rhizoctonia are present. The former is probably so familiar that it needs no description. In the latter, the surface of the potato is more or less covered with what resemble little specks of dirt, that can be scraped off with the finger nail. This disease has been very common in

this locality the last few years.

If scab alone is present, it is sufficient to immerse the seed for two hours in a solution of one pint of formalin (40 percent formaldehyde) to thirty gallons of water. When rhizoctonia also is present, the potatoes should be immersed in a solution of four ounces of corrosive sublimate to thirty gallons of water for one and one half to two hours. Corrosive sublimate is effective for both of these diseases. As this is a deadly poison, it should not be left exposed to live stock or children. In contrast to formalin, it loses its strength very readily and the same solution can be used only three or four times. The seed should be treated before it is sprouted or cut, as is described later.

After the seed potatoes have been treated, they must not be put in boxes or bags that contained untreated potatoes or they are apt to become infected again. Furthermore, potatoes should not be planted in fields that grew potatoes the previous year, as the ground is apt to be infected with the spores of scab or rhizoctonia.

Sprouting Potatoes

When an early crop is wanted, and the ground is rather wet and cold, it is desirable to sprout the potatoes by placing them in a light room about two weeks before planting. This will develop short thick sprouts that will begin to grow almost immediately after being planted. These sprouts should not be allowed to grow more than one half inch long or they will be easily knocked off in cutting and planting. Another decided advantage from sprouting is that in cutting it is easily seen what buds grow well, and care can be taken to have at least one vigorous bud to each seed piece.

Care of Hotbeds

Having started the hotbed in good season with tomatoes, cauliflower, and other long season crops, it is necessary that these plants be properly hardened off before transplanting to the field. If coldframes are not available for this purpose, the hotbed which has gradually lost its intense heat can be used to good advantage. Raise the sash a few inches each night and take them off wholly during the day; when the nights are warm the sash may be kept off altogether. Whatever you do, don't ever let the plants be checked—keep them growing all the while. The young tomato seedlings in the cold frame will require careful attention in the way of watering and ventilation; otherwise, many plants will be lost by damping off or from sunscorching during bright days.

Transplanting

Transplanting of the crops started under glass or indoors should not be neglected; especially is this true of tomatoes. As soon as the first pair of rough leaves appears, shift them either to a flat with more room or to individual pots. Small paper pots may be purchased for this use at a very slight cost. Then, when the plants are set into the field, the roots and root hairs will not be disturbed as they would be if planted in a flat or in the soil in the hotbed. Eggplants, cauliflower, and peppers should be shifted or transplanted often to produce the best results. In transplanting any seedling, set it a little deeper than it was in the former seed bed.

Peas

Peas are a cool weather crop and must be planted sufficiently early to perfect the crop before the hot weather of the summer arrives. The common garden peas are of two general types, smooth-seeded and wrinkled. The smooth-seed varieties are the hardier, and will germinate when the soil is so cold and wet that the seeds of wrinkled varieties would not. Peas

are sown so that the seeds are one to two inches apart in the row. The plants are never thinned, except occasionally by cutworms. The depth of planting varies but is usually two to three inches.

Insecticides and Fungicides

It is the early bird that catches the best worm, so order your spray materials now before the price advances to a yet higher point. Estimate your need for this summer and place your order now. The same is true with spray pumps and other spraying apparatus of every kind and make.

Planting the Orchard

Having ordered our nursery trees, we will now consider setting them in the field. The preparation of the land ought to be as thorough as the circumstances will permit, covering a period of a year in advance. It is preferable to have the land under cultivation the year before the orchard is set out, growing a crop of beans, corn, or potatoes, so leaving the land in good condition. If the land is sod it should be plowed as soon as the weather permits. A much better plan, however, is to fall plow.

In setting out the young trees, some uniform plan should be used. There are many methods among the best of which are the square method, the triangular method, the hexagonal method, etc. In laying out the orehard, do not be satisfied with getting an almost straight line—get it straight. Too many men are satisfied with the hit or miss system of setting trees. A planting board can be used to good advantage, and is

very simple to construct.

If the subsoil is hard, dynamite should be used to loosen the subsoil. Generally speaking, where the soil is hard or the subsoil clayey and impervious, dynamite may well be used, but it is not needed for sandy or open topsoil or subsoils. To obtain the best results, the user should have a clear undertanding of the principles of blasting and dynamiting. Always set the trees a little deeper than they were in the nursery, being sure that the roots are spread out and fine soil in and around the finer roots, so they can start quickly. Firm the soil once or twice while the hole is being filled, and also after the hole is filled, then spread a shovelful around the tree to provide a mulch to prevent evaporation. The common practice of watering trees is not well founded, for if the soil is in good condition and well firmed around the roots the trees will live and grow better than if watered.

Brooding Chickens

With a marked decrease in the number of chicks to be raised this spring, it is highly important that we make every effort to brood our chicks economically and with the least loss of life and materials. A little forethought and planning ahead will mean much at this time.

The brooding equipment should be put in readiness and tested out several days before they are to be used. A thorough disinfection should be given the brooders to destroy disease germs carried over from last year. If a coal stove is to be used in a colony house, it is necessary that the house be well cleaned and disinfected with some coal tar preparation. A coat of whitewash will add light to the house and has antiseptic value. An inch or two of sand on the floor will supply grit for chicks.

Turnish a dust bath, and keep the floor warmer. Many of the best poultrymen never use anything but sand on the floor for litter. If litter is to be used, it should be fine material which the chicks can easily scratch. Cut clover or alfalfa, hay chaff, shavings, or straw cut one to two inches make a satisfactory litter for the brooder. Sawdust should not be used, since the chicks sometimes eat it, death being the result. Whether sand or litter is used, care should be taken that it does not become damp or filthy. Damp litter makes a good growth medium for certain molds which are very harmful to chicks.

Chilling is a frequent cause of loss among chicks in the early spring. They should be taught the source of heat by confining them near the brooder for a few days. This can be done by placing a strip of cellar screen about eight or ten inches high around the brooder. This leaves no corners in which the chicks may huddle and chill. This wire should be gradually enlarged around the brooder as the chicks learn the

source of heat, and after a few days removed.

Overheating is a frequent cause of loss. The brooder should be kept in the beginning at ninety to one hundred degrees F., and gradually reduce three or four degrees a week until the chicks are eight to ten weeks old, when no artificial heat need be supplied. The comfort of the chicks should be considered rather than a set rule of temperatures. It will be found that the temperatures giving comfortable conditions will vary a great deal depending upon the season, ouside temperature, and vitality of the chicks. It is better to have a temperature too warm, with access to a cooler place, than too cool. The ideal temperature is reached when at night the chicks can be seen to lie flat on the floor and apart from each other. If they are crowding near the lamp or stove, then the hover is too cool, and if they are outside the hover it is an indication that the temperature is being carried too high.

With hen-hatched chicks, close attention must be given to the control of lice. Incubator chicks are not troubled so much with lice, but should be watched closely for them. A little lice powder dusted under the wings and around the vent will control these. Head lice may be treated with a very small amount of vaseline or some commercial head lice ointment. Only a little should be used or bad results may follow. If hens are used for brooding they should be dusted well each week with

lice powder.

Careful attention should be given to the lamp or stove. This should be looked after often. If oil brooders are used fill the lamp and trim the wick each day. If a coal stove is used, put on fuel at least twice a day

and oftener if necessary.

There is too often a tendency to overcrowd the capacity of the brooder, thereby producing stunted chicks and a high mortality. We should rarely run over fifty chicks under the oil brooders or two hundred under the coal stoves. A safe rule on the coal stove capacity is to run

half as many as the manufacturer advises.

Leg weakness is a common cause of loss among brooder chicks; especially is this true when the chicks are confined on cold hard floors. Plenty of sand on the floor with litter for exercise will help to keep off this disease. Bone meal in the feed will give bone development to the rapidly growing chick, aiding in the prevention of leg weakness. A piece of sod placed in the brooder will provide mineral matter and exercise. In preventing leg weakness it is highly important to get the chicks on the ground and in the outside air as soon as possible. If the weather will permit, the chicks should be allowed to run outside after a week old, even if they can be left out for only a short time. When they begin to huddle they should be placed in the brooder again. After placing them out a few times they will learn the way back themselves.

War Ration Available

Some of the grain dealers have shown a willingness to mix the poultry war rations recently recommended by the Agricultural Colleges in the Eastern States. These rations are mixed at about the retail price for the ingredients, and are more economical than the ordinary scratch feeds. The ten per cent. allowance for wheat is included.

Feeding Chicks

The objects in chick feeding are: (1) quick maturity of a large proportion of chicks hatched; (2) development of large, strong, well-proportioned frames; (3) low cost as is consistent with other requirements. The essentials are good wholesome food, cleanliness, regularity, exercise, proper quantity, animal food, green food, mineral food, and pure water.

The first food should not be given until the chicks are 36 to 48 hours old, since the egg yolk nourishes them until this time. The first meal may consist of rolled oats with a sprinkle of bone meal, charcoal, and chick grit. This should be moistened with either sweet or sour skim milk and fed in shallow pans. This should be given five times a day the first week. A little commercial chick feed may be sprinkled on the sand the first day. If possible, the only drink the first few days should be either sour or sweet skim milk. We believe that skim milk is one of the best foods that can be given chicks, both to promote growth and prevent disease. White diarrhea and other chick ailments are often prevented by the use of milk. Wherever possible, skim milk should be used in the feeding of chicks. When water is given, it should be kept clean and changed often.

A little green food in the form of finely grated mangels, sprouted oats, or lettuce should be given daily from the first. After the first day, a growing mash should be kept constantly before the chicks in shallow trays or boxes. This mash may be kept available for the chickens until maturity. A growing mash which has been used by hundreds of practical growers and has given satisfactory results is as follows:

- 3 lb. wheat bran
- 3 lb. corn meal
- 3 lb. wheat middlings
- 3 lb, sifted beef scrap
- 1 lb. bone meal

After the first week, the rolled oats feedings may be substituted by the above growing mash moistened with milk, adding a little chick grit and charcoal. The number of moist mash feedings per day should be gradually reduced so that by the sixth week only one a day is given. It is important that several feeds be given each day during the first several days to get the best results. However, where time forbids, one may start off with three feedings of moist mash per day and the results will be satisfactory,

The fine commercial chick feed should be fed in the litter to induce exercise until the fourth week when it may be gradually replaced with intermediate scratch grain or the "War Ration" chick scratch grain as given elsewhere in this bulletin.

When chicks are attended to the last time at night, the crops should be examined to see that they are well filled. This indicates proper feeding, and will insure good growth, Plenty of exercise must be given to keep these rapidly growing birds in good health. This is best secured by feeding the scratch grain in litter and providing free range.

Still Time to Hatch

There is still time enough to hatch chicks which will grow and develop properly. General purpose or American breeds such as Plymouth Rocks. Rhode Island Reds, and Wyandottes, may be hatched until the last of April and give good results.

Government Urges Poultry Growing

We give herewith a clipping taken from the "Weekly News Letter" of the United States Department of Agriculture.

"Poultry production should be increased greatly, especially in back yards and on farms where waste material is available and the purchase of expensive grains and other material is not required.

"Increased poultry production may be attained most economically by early hatching; by confining mother hens at least 10 days after the chicks are hatched; by reducing losses on account of rats, weasels, and thieves, and from cold, damp conditions; by thorough sanitation; by discouraging the marketing of early hatched pullets as broilers; by eliminating nonproducing hens and keeping good layers through at least two laying seasons; and by the poultryman raising his own feed as far as possible."

Change In Poultry Rules

We have just received from the Norfolk County Food Administrator the following notice:

"Rule 15, of the Poultry Division of the United States Food Administration seems to have opened the door wide to what appears to us at least gross irregularities.

"This rule should be interpreted as permitting the farmer to sell only in a most limited way to retailers or consumers in his immediate vicinity, that is, his city, town or village, and in no case more than one or two pair at any one time."

Eastern Colleges Hold Conference On Chick Feeding

Representatives of Poultry Departments of Eastern Colleges, including the Massachusetts Agricultural College, recently held a conference for the purpose of adopting a standardized war ration for chicks. The report follows:

"It was appreciated that this question will soon be a very vital one where chicks are reared in considerable numbers, and the limitation as to the usage of wheat contributes to make the problem still more acute. After careful consideration the representatives of the four colleges assembled approved the following rations and recommended methods of feeding and authorized their immediate publication and release for general use.

CHICK RATIONS AND METHODS OF FEEDING CHICK SCRATCH

Fine Cracked Corn	70 lbs.
Steel Cut Oats	20 lbs.
Cracked Wheat	10 lbs.
	100 lbs.

Possible Changes:

- 1. If steel cut oats are not available increase the amount of $\ensuremath{\mathsf{cracked}}$ $\ensuremath{\mathsf{corn}}.$
- 2. When chicks are about six weeks of age the above chick scratch may be mixed by substituting coarse cracked corn for the fine cracked corn and whole wheat for the cracked wheat.
- 3.. After chicks are ten weeks of age the Standardized War Scratch Ration for Laying Hens, previously adopted, should be gradually substituted for the above chick scratch.

The Standardized War Scratch is composed of the following in gredients:

Cracked Corn	500 lbs.	400 lbs.
Feed Wheat	100 "	100 "
Heavy Oats	200 " or	200 "
Barley	200 "	300 "
	1000 "	1000 "

CHICK MASH

The following chick mash is recommended:

Wheat Bran	300	lbs.
Wheat Middlings	100	,,
Corn Meal	100	,,
Gluten Feed	100	,,
Ground Oats	100	**
Meat Scrap	100	"

This mash can be readily obtained by adding 100 lbs. of wheat bran to every 300 lbs. of the Standardized War Laying Mash, as previously adopted.

METHODS OF FEEDING

During the first week feed the above chick scratch ration four or five times daily, feeding same sparingly or what they will clean up and be hungry at each succeeding feeding. From the third day on keep wheat bran before them all the time.

During the second week feed grain three or four times daily and substitute Standardized War Mash for Laying Hens for the Chick Mash.

Make all changes of feed gradually.

Skim milk or buttermilk is considered indispensable in the feeding of baby chicks especially during the first week, which period is especially critical in the development of the growing chick. In order to insure that all chicks become familiar with the milk and secure a sufficient amount it is further recommended that no water be given during the first week. If milk is available it is recommended that its use be continued.

"Green food should be fed after the first week."

Home Making Department

Milk As A Food

Milk is one of the many foods that has almost doubled in cost during the past year, and as a result of this increase in cost there has been a general decrease in the amount consumed. The advance in the price of milk has been justified by the increased cost of food for cows, and in order to make milk production a paying proposition for the farmer, the price was necessarily increased.

Economy in the diet does not always depend upon limiting the use of certain foods, but sometimes is a question of increasing foods which furnish nutritive material at a low cost. Milk is an example of this type of food, and we find that milk at 15 or 20 cents a quart is a comparatively cheap food.

We eat food for three main reasons: first, for energy; second, for building material; and third, for body regulating substances. In order to have a healthy well-nourished body, all these needs must be met. The value of a food to the body is measured by its ability to supply one or all of these needs. The cost of a food is measured by comparing its cost as a source of energy, building material, or body regulating substances, with the cost of these things in other foods.

COMPARE THE FOLLOWING COSTS OF FOODS FOR NUTRITIVE VALUES RECEIVED TO SUPPLY PROTEIN AT EQUAL COST

Milk at 15 cents a quart is as cheap as sirloin steak at 34.9 cents a pound

or eggs at 37.7 cents a dozen

TO SUPPLY ENERGY AT EQUAL COST

Milk at 15 cents a quart

is as cheap as sirloin steak at 21.3 cents a pound

or eggs at 19.8 cents a dozen

Dietary experiments have shown the nutrients in milk to be of ex-The proteins of milk are very superior, and are particularly good and necessary in the diet where growth is taking place. Milk must be included in the diet of the child, and can well be used as a substitute for meat in the adult's diet. Although milk is not a cheap source of energy, we find the energy yielding constituents, fat and sugar, to be peculiarly valuable. Milk sugar does not easily ferment in the digestive tract, which is an important factor in the feeding of young chil-The fat of milk contains a substance essential for occurs in but few foods in amount sufficient to promote normal growth. Although milk has been so liberally praised for the quality and cheapness of its protein, this is not the only conspicuous function of milk as a bodybuilding food. Milk as a protein yielding food can be replaced in the dietary more easily than milk as a lime yielding food. Comparatively few common foods contain, in the amounts that can be eaten and digested by a child, a sufficient quantity of lime to provide for normal growth. Milk is the richest in available lime of all the common foods, and its absence in the family dietary or its use in very limited quantity may prove to be an expensive procedure as well as an unsafe one. The abundance of lime in milk makes it at eight or ten cents a quart the cheapest possible

source of lime, and at even fifteen or twenty cents a quart a very cheap source of lime. There must be plenty of lime in the children's food, for a great deal of it is needed for their bones and teeth, and some

for their blood and all other parts of the body.

Milk is comparatively rich in phosphorus as well as in lime, and forms an important and cheap source of this valuable element. Milk is low in iron, and when it forms any considerable part of the diet it should be associated with foods rich in iron. In spite of its low iron content, it is an important food to use when the blood is low in iron, because lime in food is believed to increase the ability of the body to utilize iron.

Many people do not realize how nutritious skim milk is. They imagine that because it so generally has little or no commercial value it is hardly fit for human food. As a food it is not so valuable as whole milk and cannot take the place of the latter in the diet of children. Nevertheless, skim milk can be used to great advantage in cooking and is altogether too valuable to be wasted. Compare the composition of whole and skim milk. Skim milk is equal to whole milk in food value with the exception of the fat content and the growth producing substances.

COMPARATIVE COMPOSITION OF WHOLE AND SKIM MILK

	Whole Milk	Skim Milk
Protein or Muscle building food	1 oz.	1 1-5 oz.
Fat	1 1-3 oz.	
Milk Sugar	1 2-3 oz.	1 1-4 oz.
Mineral Matter	1-4 oz.	1-4 oz.
Cost	13 cents	6 cents

Those who buy milk seldom have much skim milk to use unless they follow the custom of skimming their own cream. This is an economical way of solving the milk and cream problem and should be more generally

practiced.

The war has placed an increased demand upon our milk supply. During the past year we have shipped three times as much butter as in any previous year, and we will doubtless be called upon to ship five times as much this coming year. To meet this demand, we must be economical in our use of butter and prudent in our use of milk. Waste of milk in any form should not be permitted in any household.

Oftentimes milk becomes sour. The following points may be help-

ful in using sour milk:

(1) When sour milk or buttermilk are substituted for sweet milk,

the product will be more tender than if made with sweet milk.

(2) If the soda is mixed with the dry ingredients, more gas is retained in the product, but any undissolved soda will appear as brown spots. For this reason it is better to dissolve the soda in the liquid just before mixing.

(3) When too much soda is used it makes a yellow product.

(4) Slightly more than twice as much cream of tartar as soda is required if these are substituted for baking powder. Two and one fourth teaspoons of cream of tartar and one level teaspoon of soda are needed

for one quart of flour.

(5) To substitute sour milk for sweet in any receipt, use about one fourth of a teaspoonful of soda to one cup of buttermilk or loppered sour milk. This replaces one teaspoonful of baking powder in the receipt. If the receipt calls for four teaspoons of baking powder, we may use one fourth teaspoonful of soda and one cup of sour milk to replace one teapoonful of baking powder. Three teaspoons of baking powder will still be needed to make the product light.

The Food Administration has issued five rules to guide the housewife in buying. Two of these rules give suggestions regarding the purchase of milk.

(1) Don't begin to save on milk.

(2) Spend at least as much for milk as meat.

Allow one quart of milk for every child if possible, one pint without fail. It is desirable to allow one pint a day for each adult in the family; at least allow them one cup.

Many adults and children who object to raw milk will take it when disguised in desserts, soups, etc. Milk is the foundation of the following receipts. Have you ever tried them?

c. cup

t. teaspoon

T. tablespoon

CREAM OF TURNIP SOUP

Scald one quart of milk with two slices of onion in a double boiler. Add one cup cold mashed turnip and cook ten minutes. Add a little cold milk to two T. corn starch and rub until smooth. Add to the scalded milk and cook ten minutes. Add three T. oleo or nut margarine. Season with salt and pepper and strain if desired.

NOTE: 3 boiled onions or 1 c. cold cabbage used instead of turnip

make a very good soup.

APPLEDORE SOUP

An unusual soup may be made by substituting 3 mashed potatoes for turnip in the above receipt. Just before serving add 3 T. tomato catsup.

SCALLOPED HAM

2 c. left over chopped ham

2 or 3 eggs

2 c. grated cheese

2 c. milk

Beat eggs thoroughly and add to milk. Place alternate layers of ham and cheese in oiled baking dish. Pour milk and egg mixture over all and bake 25 minutes in a moderate oven.

MOCK CRABS

To 3 T. of nut margarine or vegetable oil, add 1-4 c. corn starch mixed with 11-2 t. salt, 3-4 t. mustard, 1-4 t. paprika; then add gradually 11-2 c. milk, 1 can corn, 1 egg slightly beaten, and 3 t. Worcestershire sauce. Pour into a buttered baking dish, cover with buttered bread crumbs, and bake until the crumbs are brown.

CREAMED RAREBIT

1 T. corn starch
2 T. oleo or nut margarine
1-4 t. salt
1-8 t. paprika
3-4 c. cheese

Scald the milk in double boiler. Cream the oleo and corn starch well together. Add to the scalded milk and cook 10 minutes. Add the seasoning and the grated cheese to the hot white sauce, stirring constantly until the cheese is melted. Serve on dry toast. One half a cup of chopped olives may be added. This sauce is very delicious served with an egg omelet.

OMELET

2 T. oleo or nut margarine few grains paprika

4 T. flour 4 eggs 2 c. milk 1 t. salt Cream the fat, add the flour, and add gradually scalded milk. Cook in a double boiler for five minutes. Add the yolks of the eggs which have been beaten until thick and lemon colored. Remove from the fire, add the seasonings, and fold in the white of the eggs, beaten until stiff and dry. Heat omelet or frying pan and oil the sides and bottom, turn in the mixture, spread evenly, place on a range where it will cook slowly, occasionally turning the pan that the omelet may brown evenly. When well puffed and delicately brown underneath, place the pan on the centre grate of the oven to finish cooking the top. The omelet is cooked if it is firm to the touch when pressed by the finger. Fold and turn on hot platter. Serve immediately.

SEA MOSS BLANC MANGE

Place one quart of milk in a double boiler. Shake 2 t, sea moss farine very slowly into the milk and add 1-4 c, sugar or syrup. Stir it well to prevent lumping while it is slowly heating. A slow heating gives a whiter color and better flavor. Add 1-8 t, salt. Flavor with lemon or other extract. Pour into molds and serve cold with cream or preserves. The juice from one bottle of maraschino cherries folded into whipped cream and served on the blanc mange, garnished with cherries, makes a very delicate and attractive dessert. The pudding may be varied by adding 2 T. cocoa with the sugar.

PINEAPPLE PUDDING

2 3-4 c. scalded milk 1-4 c. cold milk 1-3 c. cornstarch 1-4 c. sugar or syrup

1-4 t. salt 1-2 can grated pineapple whites of 3 eggs

Mix the cornstarch, sugar, and salt, dilute with cold milk. Add to the scalded milk, stirring constantly until mixture thickens, afterwards occasionally. Cook 15 minutes. Add the white of eggs beaten stiff and the pineapple. Mix thoroughly, mold, chill, and serve with soft custard.

Custard Sauce

2 c. scalded milk yolks of 3 eggs 1-4 c. sugar or syrup

1-8 t. salt 1-2 t. vanilla

Beat eggs slightly, add the sugar and salt. Stir constantly while adding gradually the hot milk. Cook in a double boiler. Continue stirring until mixture thickens and a coating is formed on the spoon. Chill and flavor.

NOTE: When eggs are scarce, use yolks of two eggs and 1-2 T. cornstarch.

Town Leaders In Food Conservation

Reaching the individual home in food conservation work is a difficult problem, but most essential. In order to make the work more farreaching, a plan was suggested to the conservation committees in several towns whereby a local person should be appointed to act as a leader in food conservation work. Eight towns chose leaders, and a series of eight lessons were given these women in demonstrating war cookery. After completing this course, the leaders formed neighborhood groups in all sections of their towns, and have given out information and receipts which

they received. These leaders have been most enthusiastic in their work and have accomplished splendid results. One leader for the past month has averaged four demonstrations a week in her town, having had an average attendance at her meetings of thirty women. As a result of her work, probably 500 women have been reached in this one town.

One leader has completed the course in war cookery with three groups in her own town, and as a result of her success here has been called to a neighboring town to give the course to a group which has been formed

there.

The establishment of a food centre in one town has been the outgrowth of one leader's enthusiasm in food conservation work. The weekly demonstrations that she gives here have been very well attended, and the appreciation which the women have expressed for the information received has been most gratifying.

A group of fifteen women in Quincy have recently been chosen to serve as local leaders. These leaders are at present taking their course in war cookery, and will soon be able to give instructions to neighborhhood

groups.

The enthusiasm and efforts of the women doing this work is most commendable, and we feel that by this method of instruction many women have been reached that otherwise would not have been.

Food Thrift Centre

Foxboro is quite alive to the great need for food conservation. As a result of the efforts of the Woman's Food Conservation Committee, a food centre has been established. Two attractive rooms in the central part of the town have been procured, and these rooms are fast becoming the centre of food conservation work in the town. One room has been fitted up with sufficient equipment for demonstrations. In the adjoining room, various food exhibits are displayed, receipts are posted, and quantities of bulletins arranged for distribution.

Although this food centre has been established less than a month, it has been very well patronized by the women of the town. The rooms are open two afternoons a week, and once a week a demonstration is given on war cookery. There are many possibilities that may be developed in this centre, and it is expected as the season advances that a greater use will

be made of these rooms.

Anyone interested in visiting this food centre should make arrangements with Mrs. Mabel C. Swift, chairman of the Food Conservation Committee.

Two Sewing Classes Organized

Classes in the renovation and remodelling of clothing have been started in Franklin and Holbrook. There are fifteen women enrolled in each class, meeting once a week in the home of one of the members. The course consists of nine lessons in practical dressmaking, being given under the instruction of Mrs. Edith L. Tyler of Somerville. Mrs. Tyler is not only a practical dressmaker, but has been teaching dressmaking during the past winter in the Somerville Evening School.

The first lesson is devoted largely to the explanation of commercial patterns, explicit directions being given for using and adjusting the various patterns to fit the individual. Suggestions are also given for cleansing and pressing material for renovation. Each woman brings her individual

problem, and suggestions are given her as to what patterns could be used for the material which she has. The following five lessons are devoted to the making of the garment under the supervision of the instructor. In one class the following garments are being made over: small boy's coat, woman's coat, evening dress, child's dress.

We hope as a result of this instruction the women in these classes will have received sufficient information to make possible a better utiliza-

tion of discarded material which is not worn out.

Boys' and Girls' Club Department Standard Club

The State Leaders of Boys' and Girls' Club work in their conference at Washington, February 14 to 20, adopted the following outline for a standard club:

1. A standard club shall have a membership of at least five working on the same project.

2. There shall be a local club leader in charge during the club year.

3. There shall be a local club organization with the necessary officers and duties.

4. There shall be a definite club year program of work.

5. There shall be held at least six regular club meetings during the club year. The secretary shall be required to keep definite records of these meetings and also of the progress of each member of his project.

6. A local exhibit shall be held annually.

7. There shall be a demonstration team which must give at least one public demonstration.

8. At least sixty percent of the members must complete the project and file a final report with the State Club Leader.

9. A judging team shall be chosen by competition between the members.

10. An achievement day shall close the Club year.

11. The club shall hold a membership in the Farm Bureau or other

County Club organization.

12. When the first four requirements have been met, a Standard Club charter will be issued. When all the requirements have been met, a National seal of Achievement will be awarded.

The following out of this outline will assure a uniformity of work throughout the whole United States and give a fair basis for the com-

parison of state achievements.

Changes In Pig Club Requirements

Pig Club rules for 1918 have been sent to 1917 members. If you have not received a copy, write for one and it will be sent you.

The most important change is the lengthening of the club season to December 1st. Last year a lot of the club members' pigs were just beginning to grow well when the contest closed, the first of October. This year these members will have a chance to try again under better conditions. Mr. Rice, State Leader of the Pig Clubs, besides outlining the rules for the club work, also gives some good advice. He says:

"You might grow a pig and still not be patriotic. Do you know how? By growing your pig entirely on grain that you purchased at the store and which is so sorely needed as a human food both here and in Europe. Of course, you will need to buy some grain to feed in order to get paying results, but you must grow as much of your own food as possible. As soon as I receive your enrollment card I will send you a half pound of Dwarf Essex Rape seed with instructions for planting. This will furnish your pig with a lot of cheap food during the summer. You should also plan to grow some field corn; 20 to 25 rows about 100 feet long will furnish corn for a pig for two months.

"Begin to make your plans now, find out where you can get a good pig, build him a nice house and moveable pen, get your ground ready to

plant, etc.

"Get in the ranks of the Pig Club to help Uncle Sam. He needs you. Have some fun and make some money for yourself."

Following is an outline of the club requirements:

MASSACHUSETTS BOYS' AND GIRLS' PIG CLUB

Open to all boys and girls in the state of Massachusetts between ages of 10 and 19. What you must do in the Pig Club:

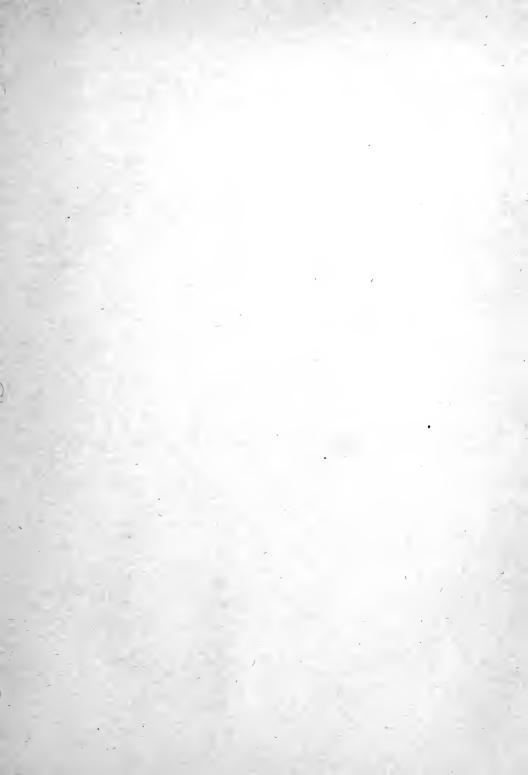
- 1. Obtain pig, any breed, any weight, by June 1.
- 2. Get weight of pig June 1.
- 3. Keep record in record book of all feed fed pig during June, July, August, September, October, and November.
 - 4. Exhibit pig at community fair if practical.
 - 5. Get weight of pig December 1.
 - 6. Write "Story of My Pig."
- 7. Send in complete record book to your County Boys' and Girls' Club Leader.

Food Administration Endorses Pig and Poultry Clubs

The following is an extract from a letter recently sent to the chairmen of town food production committees and local newspapers by the County Food Administrator:

"The Food Administration regards the plan of the Boys' and Girls' Pig and Poultry Clubs as promising great assistance in the production of food this year.

"To carry out this plan successfully in every town, it is essential that the Board of Health in every town be as lenient as possible. If there are any local rules or ordinances that would interfere in any way with the largest possible increase in the numbers of pigs and poultry, will you not take it up with the local Board of Health, to get them to work with you as far as possible?"

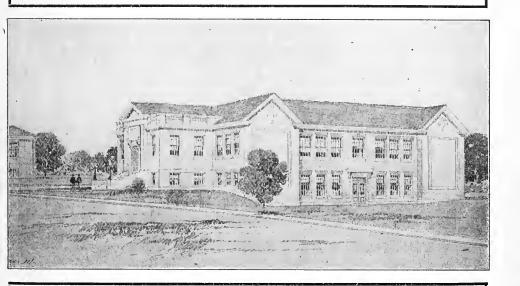




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SCHOOL STAFF

FREDERIC W. KINGMAN. Director
CAREY W. CARRICK. Poultry Husbandry
HORACE C. FUNK. Animal Husbandry
ANDREW N. SCHWAB. Market Gardening
CHARLES W. KEMP. Weymouth Dept.
MARY E. SHEPARD Sec'y and Accountant

FARM BUREAU DEPARTMENT

Timely Topics

Training High School Boys for Farm Service

The Saturday lessons for high school-boys who have enlisted for farm service this summer were started April 6, with an attendance of thirty-two boys. The towns sending boys were as follows:

	Enrolment
Avon	3
Holbrook	5
Randolph	5
Braintree	6 .
Medfield	5
Franklin	3
Stoughton	5

We give herewith the program for the first day. This is typical of the lessons to be given on succeeding Saturdays.

FARM PRACTICE COURSE FOR HIGH SCHOOL BOYS

First Day: Tools, Soils, and Fertilizers

Morning

- 9:00 Teachers and Principals—Conference in Director's Office.
 - 9:20 Welcome by Director F. W. Kingman-Assembly Room.
- 9:30 Address by Mr. W. A. Munson, County Agricultural Agent, Norfolk County Farm Bureau.
- 10:00 Registration of students.
- 10:15 Outlines and explanation of work for the day.
- 10:30 Work Begins. Periods will last one hour, and groups will shift as follows:

G~oup	10:30	11:30	2:00	3:00
A	Section I	11	III	IV
В	11	III	IV	I
\mathbf{C}	III	IV	I	II
D	IV =	I	II	III

12:30-2:00 Lunch and Recreation.

Sections

- I Mr. Kemp—Arena
 - Common Farm and Garden Tools, etc.—nomenclature. identification. use, cleaning tools.
 - Tools for consideration—hoes, rakes, forks, shovels, spades, scythes, hand cultivators.
- II Mr. Carrick-Poultry Room.
 - Soils—samples and field trip. Types: gravel, sand, sandy loam, loam, clay.
 - Soil formation—water, wind, ice, plant and animal decay, chemical changes.
 - Soil composition—rock and organic matter, plant food elements, carbon, oxygen, hydrogen, nitrogen, phosphorus, potassium, calcium, magnesium, iron, sulphur.
 - Soils usually deficient in nitrogen, phosphorus, potassium, and sometimes calcium (lime). These must be supplied.
 - Fertilizer bags give analyses. A 3-6-10 means 3 per cent nitrogen, 6 per cent. phosphoric acid, and 10 per cent. potash.

III Mr. Schwab—Gardening Room. Manures—kinds, values, handling, and use. Methods of spreading for different crops.

IV Mr. Funk—Dairy Room.

Fitting the soil.

Why we plow and spade—to destroy plants and weed seeds; to dry out or keep moist the land; to air out the soil; to make cultivation easy.

Methods of fitting the land: time to plow; depth of cutivation; red ink experiment; capillary tubes.

Garden Course At Agricultural School

A garden course, covering actual work in planting, care, cultivation, and spraying, including short talks on these subjects, will be given at the school this spring if there is enough call for it. Commencing May 1st the course will be given Wednesday afternoons at 2:30 for a period of six or eight weeks. If you are interested in such a course, will you please communicate with the Director?

Meeting of Farm and Garden Association

The New England Branch of The Woman's National Farm and Garden Association will be the guests of the Norfolk County members of the association at the Agricultural School, Walpole, Saturday afternoon, May 4th. This live organization is doing a splendid work in stimulating interest in food production and turning the attention of young women toward farm and garden work. At the close of the session a visit of inspection will be made to Westwood, where a group of young women is to be employed on a farm the coming season.

For Sale

Two Candee Mammoth Incubators, one with nine sections, one with eight sections. Any reasonable price considered. Purchaser to take down and pack.

G. H. DOWSE, Wrentham, Mass.

Two bushels early seed corn, guaranteed to germinate ninety percent. \$6.00 per bushel.

P. T. PEARSON, Weymouth.

One bushel Currie's rustless wax beans.

\$12 per bushel. C. H. THAYER, Milton.

Ford Tractors May Be Secured From State

The Massachusetts State Board of Agriculture has secured from Henry Ford & Son, Inc., an option on 1,000 of the Ford tractors. These machines are being manufactured at a factory specially built for the purpose, at Dearborn, Michigan, and are the same type as an order of 6,000 now being completed for the British Government.

These tractors have not been put on the open market and the Ford Company is distributing them only through governmental agencies. price is \$750 f. o. b. Dearborn, and the freight on carload lots to Massachusetts points will not exceed \$15.

The Board of Agriculture has made an arrangement with the Oliver Chilled Plow Company for furnishing tractor two bottom plows at \$143 f. o. b. Worcester. The plows will be shipped direct to the buyer's sta-

For order blank and further details; write State Board of Agriculture, 136 State House, Boston.

> State Board of Agriculture, WILFRID WHEELER, Secretary,

A Conservation Measure by Vegetable Growers

BY H. F. TOMPSON

Market gardeners are studying the detail of their business for all possible conservation of labor and materials. The prices of their products at wholesale have not ruled higher than in pre-war days, and unless special measures are found which will reduce the expense it will be im-

possible for many of them to maintain their usual production.

It is proposed that market gardeners stop bunching many of the vegetables now treated in that way. This is believed to be a wise measure which will work no hardship to the public and will bring considerable saving in labor and materials which will be free for other more We hope that the consumers of Massachusetts will essential work. cooperate fully with this proposed plan and be glad to buy such crops as celery, beets, carrots, parsnips, turnips, radishes, unbunched and by count, where they have hitherto bought them by the bunch.

It is planned to start this change in handling on May 1. All the Market Gardeners' Associations in New England have been approached,

and most of them have agreed to adopt the plan.

The drying of both fruits and vegetables will be emphasized this year on account of the shortage of sugar and of glass and tin for canning.

The methods of drying have been greatly improved over those used last year and the dried products are bound to grow in favor. much less percentage of loss in the dried than in the canned produce and the greater saving of space required for storage is much in its favor. Also, those who have done much drying declare it to be a very great saving of labor. The article does not deteriorate in flavor and if placed in suitable containers, can be kept over a period of several years. vegetables as corn, peas, and beans, which are inclined to flat sour in the process of canning, are always successful when dried. The German housewife often has more than a year's supply of vegetables and fruits dried and stored in paper bags.

Garden Supervisors Meet

On April 2 and April 16, the garden supervisors who have been appointed by local food production committees met at the Farm Bureau office for a conference. Timely topics relating to the home garden and ways in which the supervisor can be of most value to the citizens of his community were discussed.

One of the best plans advocated for bringing to the attention of the individual the correct making and care of a garden, is the neighborhood If a successful backyard gardener can be found who will invite to his garden those of his neighbors who are interested in getting the most from their plots of land, and there discuss with them the practices he has found to give the best results, and demonstrate his methods of preparing land, applying manure and fertilizers, treating seed for diseases, planting seeds, cultivating, thinning, weeding, transplanting, spraying, staking tomatoes, and the use of the various garden tools, much more is accomplished than by simply giving out information as it may be re-Seeing a thing done is always more impressive than telling about it, and those who depend entirely on their own personal experiences and investigations are considerably longer in getting results than those who gain from the experience of others.

Those present at the last supervisors' meeting believed that a great many timely suggestions could be brought to the home gardener's attention by having garden bulletin boards placed in the most frequented public In order that these suggestions might be authoritative, a request was communicated to the Massachusetts Agricultural College for printed

bulletins with seasonable suggestions for posting on the boards.

It was voted to hold the next supervisors' meeting on April 30. present felt that the exchange of ideas was of much value and helped materially in advancing their work. These meetings are open to any who are interested in the promotion of home gardens and wish to attend. seasonable subject desired by those present will be discussed.

New England Poultry Producers' Exchange

About two hundred and fifty people interested in poultry keeping met at the State House on Tuesday, April 16, for the organization of the New England Poultry Producers' Exchange. A report of a national poultry convention was given at this meeting, showing the seriousness of the poultry situation over the country and especially in New England. A Constitution and By-Laws were discussed and adopted. The objects of the organization are given as follows:

To conserve and promote the poultry interests of New England.

To encourage, introduce, and apply improved business methods in poultry culture and to promote cooperation with State, County, and local organizations in New England which are engaged in the work of developing poultry producers' interests, especially those concerned in cooperative buying or manufacturing of supplies and in the distribution of products.

3. To furnish adequate and reliable information regarding the industry, to enable them to act intelligently and safeguard their interests.

- 4. To secure efficient economical and uniform methods in grading, packing, transporting, marketing and advertising of poultry and poultry
- 5. To rent, buy, build, own, sell and control such buildings and other real and personal property as may be needed in the conduct of its operations.

6. To protest against rules and regulations detrimental to our interests, and to suggest from time to time rules to regulate abusive

practices in handling supplies necessary in our business.
7. To affiliate with the Eastern States Farmers' Exchange in the purchase of its supplies and marketing of its products and to avail itself of the facilities of the Eastern States Farmers' Exchange and participate in its management through such representation as may be authorized by the Executive Committee of the New England Poultry Producers' Exchange and by the Executive Committee of the Eastern States Farmers' Exchange.

The organization authorized the appointment of a representative in Washington to cooperate with the Food Administration in securing favorable rulings which affect the poultry industry. A special effort is

being made to secure a better grain situation immediately.

The Exchange plans to conduct an educational campaign concerning the food value of poultry products with emphasis upon the value of fresh or New England produced eggs. Any who are interested in this organization should write to Professor J. C. Graham at Amherst, for a copy of the constitution and by-laws and for other information about the work.

Service Rendered by Boston Workhorse Relief Association

The Boston Work-Horse Relief Association, an incorporated charitable society, maintaining the annual Work-Horse Parade and a Free Hospital for Horses, will be glad to assist any person desiring to purchase a horse in the city of Boston. We have an agreement with several leading dealers under which they agree to give a good bargain to any person recommended by us, and in case of any dispute arising from the sale, to abide by our decision in the matter. We make no charge for this service, and receive no commission. We require only that the intending purchaser shall call at our office, 15 Beacon Street, Boston, and register his name and address, and shall be willing to pay a minimum price for any horse which he buys. We fix a minimum price—usually about seventy-five dollars—because we do not wish to assist in the sale of any horse unfit for work.

This agreement has been in successful operation for some years, and has saved many persons in different parts of New England from being swindled by fraudulent dealers. We are permitted to refer to Wilfrid Wheeler, Secretary of the Massachusetts State Board of Agriculture, State House, Boston, and to the Honorable Andrew J. Peters, Mayor of Boston.

HENRY C. MERWIN, President.

Agricultural Department

Corn Seed Again

Testing of seed corn has been urged in every way possible, yet we have our attention called to some cases where farmers are going to plant seed without testing. This is taking a long chance, for reports are coming in from many reliable sources that many samples of corn which gave every appearance of being good for seed have given a germination test under fifty per cent. Some reports say that corn which tested high last

fall does not give as good test this spring.

It takes but very little time to test a lot of corn, yet that time will pay the biggest returns of any spent on farm operations this season. will mean that the man who is sure of his seed and has spent time and money in preparing the land and fertilizing it, may feel that he has an even chance of getting a profitable crop. The planting of untested seed will mean that the chances are largely against a uniform stand of corn. If the corn plants are missing, even to the extent of five percent, there This is not a large figure, but is a five percent reduction in the crop. indications point to nearer fifty percent missing plants from untested seed. That means the loss of one half of all expenses of growing the corn, besides the crop itself.

If testing shows the seed to be very poor, the best thing to do is to look for a new supply. The surest way is to test the corn ear by ear, and then, after all dead ears have been discarded, the seed can be de-

pended upon to be uniform.

This is no time to take chances—test your corn.

Spraying

Every person planting a garden should be prepared to fight insects and diseases from early spring throughout the whole summer. In fighting them we must know the habits of the peculiar kind of insect or disease Insects are divided into two main classes: one, we are trying to control. we call biting insects, the other, sucking insects. As these insects have different methods of breathing and taking food, they must be controlled

differently.

The biting insect has a well developed digestive system, eating food This class of insects may usually be killed by like an ordinary animal. using a spray of a poisonous solution, or by dusting poisonous powders on the plants attacked. Arsenate of lead is the one most commonly used, giving very good results in most cases. This poison may be purchased either as a powder or paste. The former contains twice as much actual poison, so in using the powder half the quantity given below will be sufficient for ordinary spraying for such insects as potato bug, currant worm, tomato worms, etc. Use three pounds of arsenate of lead to fifty gallons of water; for some insects (gypsy moth) the amount of lead may be increased to five pounds. This spray will be all right for cabbage until they start to head, after that use either pyrethrum or hellebore.

For the destruction of insects which suck sap from the plants, such as the true bugs and plant lice or aphids, it is necessary to use a mixture which kills by contact or substances which smother the insect. sects usually collect on the under side of the leaf, so it is necessary to spray the plant all over. A good formula is one half ounce nicotine sulphate, one half ounce hard soap, two gallons of water. A kerosene emulsion is frequently used, one half pound hard soap, one gallon soft water, two gallons kerosene. Dissolve the soap in the water which should be hot, then add the kerosene and churn with a pump until the material gets thick. This is a stock solution. Dilute one part of this stock to nine of water.

The ordinary blights are usually prevented by spraying with a Bordeaux mixture. Formula: copper sulphate 4 lb., lime 4 lb., water 50 gal. Suspend the copper sulphate in a dish of water until it dissolves, then dilute to 25 gallons. Slake the lime carefully, adding water slowly, and stir until it is a thick cream; then dilute to 25 gallons. Pour these two solutions together, stirring them all the while. Prepared Bordeaux may be purchased by the small gardener in combination with lead arsenate in the form of pyrox, and is very good for use on potatoes and various other garden crops as an insecticide and fungicide. In order to control blight, start early in the season and keep at it every week or ten days throughout the entire summer. In spaying, use a nozzle that gives a fine mist, for it is very important that every part of the plant be covered and kept covered during the whole growing season.

Buy Mature Hens Now

The suspension of the rule forbidding the slaughter of live poultry will throw upon the market a large number of birds which should be retained for laying another year. We believe this is a good opportunity for those who have made no start toward a backyard flock to secure mature stock at a fair price. Birds which were hatched last spring will usually pay if kept another year in small backyard flocks, while they might not pay under commercial conditions. Since it is too late to begin hatching now, a good way of starting the home flock is to purchase some of these birds from poultrymen and farmers who are making room for their growing stock. It not only has the advantage of avoiding the dangers of rearing, but will also conserve the potential supply of hens and add to future production.

Grain and Green Food for Poultrymen

Many poultrymen, as well as small flock keepers, are this year considering the production of grain and green food as far as possible for their flocks. It is true that where a large flock is kept, one cannot well produce his entire supply of grain, but he can produce part of it and most of his green food. We believe that corn should be grown where practicable, and after large enough, use as a range for the young stock or hens. Rape and mangels make very desirable green foods for poultry and can be easily grown in this section. Rape is very desirable for growing stock, while it gives dark yolks to the eggs when fed to hens. This dark color is not harmful, but injures only the appearance. In feeding rape, simply cut the outer leaves without injuring the bud, and the plant will continue to yield during the summer. The mangels may be stored for winter use when green food is scarce. It has been found by experiment that plenty of green food reduces materially the grain bill and promotes the health of the flock.

The Dairy Industry

The high cost of feed and the scarcity of labor has somewhat discouraged a number of dairymen and in some cases caused them to sell their herds. The purpose of this article is to try to show that there is a bright side to the business, due to the demand for dairy cows and

products, both during and after the war.

In this connection, Carl Vrooman, Assistant Secretary of Agriculture of the United States, stated recently in an address to the Wisconsin Dairymen's Association: "The dairy nerds of the old world are depleted to an appalling degree. There is not a country in Europe where, the people have enough dairy products, and this process of depletion is going on every day and will continue to the end of the war. When the war is finished, we will find the world with a demand for dairy products twofold, fourfold, tenfold greater than the supply. Europe (every country in Europe) will come to us with outstretched hands, and say to us 'We must have milk; give us canned milk, dry milk, give us butter, cheese, give us dairy cattle, give us animals to build up our dairy herds again.' Unless America has stimulated the production of dairy products, has increased our supply of dairy animals far beyond anything in the past, we will be entirely unable to supply this demand. We will supply as much of it as we can, for they will be willing to pay practically any reasonable price for our live stock; and we will supply so much that our own resources will be exhausted. Then this country will be without sufficient dairy products."

In 1917, for instance, we exported about 325 million pounds of butter, cheese, and condensed milk over against 22 million in 1914; also in 1914 we imported about 86 million pounds of these products while in 1917 it amounted to only 33 million. This demand for our dairy products, as Mr. Vrooman says, is bound to increase. This foreign demand, together with the increased demand in this country, due to the more generally recognized food value of milk, surely point to a very bright future

for the dairy industry.

Soy Beans

The main uses of the soy bean in this section are for silage, forage, and green manure or cover crop. For silage it is used in connection with corn. If used in this way, the silage should consist of one part of soy bean to three or four parts of corn. The soy bean adds protein to the silage and thus makes it more nutritious. It is probably best to plant the corn and beans in separate fields and mix them when putting them into the silo, although some farmers have planted the beans with the corn with the disadvantage of the corn shading them. Some others have omitted every fourth row of corn and planted beans instead. When planted alone, they should be drilled in rows about two and a half to three feet apart, and about four seeds per foot. This will require about two or three pecks of seed per acre. This planting is done about the same time as that of corn, and the cultivation is also like that of corn. When cut for silage, the beans should be well developed, but the stem should not be hard and the leaves ready to fall off.

Under most circumstances where beans have not been grown before, it is probably best to inoculate them. This is especially true where they are used for green manure. This will furnish the plant with the bacteria that take nitrogen from the air for use in the plant. The nitrogen is later put into the soil when we plow under the beans, and the soil is thus

enriched. The inoculation is done by scattering soil (200-400 lbs. per Acre), in which beans have grown, over the field, or a culture may be obtained from the Massachusetts Agricultural College at Amherst and used according to the directions.

Probably the best use for soy beans is for green manure or cover

crop.

Profitable Now to Grow More Feed

BY JOHN B. ABBOTT, COUNTY AGENT, MIDDLESEX COUNTY

FEED BILLS ARE RUINING THE DAIRY INDUSTRY

It will be only a matter of time, and a short time at that, before Middlesex County dairymen are forced out of business unless they turn to raising more corn, clover, and other crops of high feeding value instead of such a large acreage of hay of low feeding value. Conditions have changed and it is no longer possible to buy feeds at market prices and compete successfully with dairymen of other sections who grow a much larger portion of the ration.

FEED PRICES FELL FOR THIRTY YEARS

During the thirty years following the civil war, there was a tremendous expansion of North American agriculture, both in total acreage, due to the settlement of the west, and in productive capacity per man, due to the development of labor saving farm machinery. Overproduction of farm crops was reflected in declining prices of grains. During the latter part of this era prices were so low that Eastern dairymen found it more profitable to buy large amounts of concentrated feeding stuffs than to go to the expense of growing crops of high feeding value. A very large percentage of the improved land was allowed to lie in hay. That system of farming still persists but has long outlived its usefulness as the conditions which brought it about have disappeared. There are no more cheap feeds nor are there likely to be.

FEED PRICES HAVE BEEN RISING FOR 20 YEARS

Since 1897, consumption has overtaken production, the tide of prices has turned sharply upward and economical production of dairy products solely, or even largely, on the basis of purchased commercial feeds has become almost impossible. The increase in prices since the outbreak of the war has been particularly rapid but has been offset in part by increases in the prices of dairy products. Hay, which exceeds all other crops in acreage by a wide margin, has not increased in price nearly so greatly as the grains and concentrated feeding stuffs, and hence is relatively less profitable to grow than it was ten to twenty years ago when the price of a ton of hay would buy nearly a ton of grain.

ADVANCING FEED PRICES FORCE A RADICAL CHANGE IN CROPPING SYSTEM

The time has come to cut down the acreage of hay and increase the acreage of crops of higher feeding value, and thus decrease the expenditures for commercial feeding stuffs. The saving thus effected will much more than offset the increased cost of doing so. Silage corn, field corn, clover, peas and oats and alfalfa, wherever it can be grown, are particularly well adopted to this purpose.

Norfolk County conditions are much like those of Middlesex.

Home Making Department

Our Part in the War

The fact that the present world war is not being fought on our soil and that our lands have not been devastated in the conflict has made it harder for us to realize our individual responsibility in the war. Are we doing everything in our power to keep the battlefield on European soil, or shall we, because of our indifference, allow the seene of battle to shift to the United States? This will undoubtedly happen unless we furnish a continuous and sufficient food supply to the men in our allied armies. The United States is almost the sole supply of food for the European armies and for our boys that are at the battlefront.

The food supply for our armies is in a critical condition at the present time. We not only have a limited supply of food, but we are handicapped by our transportation facilities. Our wheat situation is today the most serious situation in the food supply of the whole allied world. Consequently, Mr. Hoover has discarded the rules for wheatless days, and instead is requesting us to use no wheat before the new harvest in August. True patriotism does not confine itself to saluting the flag and singing the "Star Spangled Banner." The following extract from Mr. Endicott's weekly bulletin will show us how we may be truly patriotic:

"Householders who can do so are asked to give up all use of wheat products from now until the new harvest comes in in August. This request covers not only white flour, but also graham flour, whole wheat flour, wheat breakfast cereals, macaroni, noodles, spaghetti, vermicelli, and all crackers, bread, pastry, cakes, doughnuts, etc., containing any wheat flour. Householders who have hitherto baked at home and are able to carry out this request will not begin now to buy bread of bakers. To do

that would defeat the purpose of the present request.

"Any who are not able to follow this request to give up wheat products altogether are instructed that they should absolutely limit their use to a voluntary ration of one and one-half pounds per person per month. Those who give up wheat products altogether will have seven wheatless days a week. Those who conscientiously have to use a little wheat flour or bakers' bread will distribute it carefully through the week so as to use just as little as possible. No household ought to use more than two pounds of bakers' bread per week per person, and every loyal person will use less than that if possible. Of course no loyal person will use wheat flour for general cooking purposes.

"Bakers' bread is necessary for the subsistence of a part of the community and should be left exclusively to that part. Bakers have to use a considerable proportion of wheat flour because their bread must be durable. Beginning April 14, bakers will be required to use 25 percent of substitutes, and not permitted more than 75 percent of white flour in their

bread."

Many people are suffering from the delusion that their personal peculiarities make it necessary for them to have wheat flour in their diet. Most of these claims are the outgrowth of selfish motives. Dr. Alonzo E. Taylor in his address at a conference of hotel men in Washington, has classified people of this type quite properly. The following is a quotation from Dr. Taylor's address:

"You, gentlemen, serve a great many food faddists and cranks, and you will hear a great many expressions that your patrons cannot eat this or that, merely because they are accustomed to this or that other thing, or because they have had idiosyncrasies bred in them or developed by luxury.

"Now, gentlemen, whenever any one of your patrons tells you that he or she can't eat oats or rice or corn, but must have wheat, that individual is either a crank or a slacker and deserves from your hand only the consideration proper to the one or the other.

"We have all to decide whether we will serve the Allies, who need help the most or whether we will serve ourselves, who need it less. We

had better begin serving the Allies now."

The cereal substitutes which we have purchased with our wheat flour will not keep. Do not let them accumulate, for you are contracting needless expense and allowing a waste of food. Your families will eat them if they are well prepared and served in a variety of ways.

c-cup t-teaspoon T-tablespoon

Wheatless Brown Bread

1 c. stale muffin crumbs	2 t. soda
1½ c. cold water	1 t. salt
1 c. rolled oats	1-2 c. molasses
1 c. barley flour	3-4 c. milk
1 c. corn meal	

Soak crumbs in water and rub through colander. Put the rolled oats through food chopper. Mix all ingredients well and put in greased baking powder boxes, cover and steam 2 hours.

Rice and Corn Meal Muffins

1 c. soft boiled or left-over rice
1 1-2 T. fat
3-4 c. milk
1 t. salt
2 egg
2 c. corn meal
4 t. baking powder

Mix together rice, salt, melted shortening, beaten egg and milk. Add corn meal and baking powder. Beat well and bake in greased tinsfor twenty-five to thirty minutes.

Barley Muffins

2 c. barley flour 2 T. Karo 4 t. baking powder 1 egg 1-2 t. salt 3-4 c. milk 2 T. melted fat

Mix and sift dry ingredients; add the well beaten egg to the Karo, milk, and melted shortening. Beat well. Pour into well oiled muffin tins. Bake in a hot oven.

Buckwheat Cake (With Potato Flour)

1 c. buckwheat flour
1 1-3 c. milk
1-2 c. potato flour
1 t. baking powder
1 t. salt
1 -4 c. fat (melted)

Sift buckwheat flour and potato flour three times. Sift in the baking powder. Add salt, well beaten egg, milk, molasses and melted fat. Bake in well greased cake tin.

Chocolate Cake

1-4 c. oleo or nut margarine
2 eggs
1-2 c. sugar
1 t. vanilla
1-2 c. corn syrup
2 sq. chocolate
2 t. baking powder
1 c. mashed potato
1-2 t. salt

Cream shortening, add sugar, corn syrup, melted chocolate, potato, eggs, and vanilla. Mix and sift dry ingredients, and add to first mixture. Bake in greased cake tin. Chocolate may be omitted for a plain cake.

Rolled Oats and Peanut Butter Cookies

1-2 c. sugar or syrup
1-2 t. salt
1 t. baking powder
2 T. peanut butter mixed with sufficient amount of milk to make a

1 egg ficient amount of smooth paste

Mix the dry ingredients; add the beaten egg and the peanut butter mixture. Drop from a teaspoon on an oiled tin and bake in hot oven.

Quick Raisin Bread

 2 1-3 c. barley flour
 1-2 c. white corn meal

 1 t. salt
 1-4 c. sugar

 1 egg
 1 1-4 c. milk

 1 T. baking powder
 1 c. raisins

Beat egg thoroughly, add the sugar and beat. Add the milk and Beat the whites until stiff and dry. Add the sifted dry ingredients to the and let stand 15 minutes. Bake fifty minutes in a moderate oven.

Barley Sponge Cake

1 c. sugar1-8 t. salt4 eggs1 1-4 t. baking powder1 c. barley flour3 T. water

t. barley nour 3 T. water 1 T. lemon juice

Beat yolks until thick and lemon colored. Add the sugar and beat. Add the water and flavoring and continue to beat with the egg beater. Beat the whites until stiff and dry. Add the sifted dry ingredients to the beaten yolks, and fold in the stiffly beaten whites. Bake in a moderate oven.

Classes for Leaders in Food Preservation

Food preservation must include more this season than merely canning fruits and vegetables. We must can, dry, and preserve more fruits and vegetables than ever before in order to make each family self-supporting. We cannot afford to have failures this year. Foods are too costly and precious to be wasted, and time is too valuable to be spent without having results to show for it.

In order to make preservation work in Norfolk County more efficient, we are planning to have two courses for training leaders in methods of preservation. These schools are to be held for two days, and will consist of practical work in the canning and drying of fruits and vegetables by people participating in the course. Community enterprises and club work will be discussed. The schools are conducted by

the Massachusetts Agricultural College in cooperation with the Home Making Department of the Farm Bureau, the instructions being given by

two instructors from the College.

These training schools are to be held the week of May 20. In order to accommodate leaders from all towns in the county, we are hoping to have two centres, one in Norwood for towns in the western part of the county, and one in Quincy for the convenience of the towns in the eastern end of the county. We should have an attendance of fifteen leaders in each school. After receiving this training, the leaders will be equipped to act as information bureaus and give demonstrations to neighborhood groups in their respective towns during the summer months. Do you not think that your town would be benefited by having one of these leaders?

Sugar For the Preserving Season

The Food Administration makes the following statement regarding the supply of sugar: "Sugar may be used at the rate of three pounds per person per month. A supply of sugar will be provided later for canning under direction of the Government."

Food Center Established in Norwood

The Norwood Civic Association is cooperating with the Committee of Public Safety in opening a Conservation Centre at the Model House, 10 East Hoyle Street, Norwood, Mass. The Centre is to open on Thursday, April 25, with Miss Marion P. Crawford in charge. Mrs. Eugene Endicott, Woman Food Administrator of Norfolk County, is to have general supervision.

Three rooms have been attractively fitted up for this purpose. One is to be used as a library and reference room, where the messages from the Food Administration, exhibits, and war-time receipts will be posted. Two rooms are to be used for the preparation and cooking of war-time foods.

Classes of eight members will be offered a course of eight lessons in war cookery. A Home Demonstration Department will also be established at this Centre. It is planned to offer courses in the renovation and remodeling of clothing.

The Centre will be open daily from nine to five, except on Mondays and Saturdays. On Mondays the hours will be from two to five, and on Saturdays from nine to twelve.

Conservation Through Community Effort

More than 80,000 quarts of fruits and vegetables were canned in community kitchens in Massachusetts last year. In addition to the caning, several hundred bushels of products were dried. These figures do not include the thousands of quarts of products preserved in the homes of those who came under the influence of one of these community centers.

There were thirty-five or more communities in the state that were organized to do work along lines of canning and drying. All these centers

were remarkably successful in that they increased quite largely the preservation of food materials. The loss from spoilage was very small, in no case being more than 2 percent and in most cases running less than 1 percent.

The cost of doing the work where volunteer labor was used was very low, running from 3 cents to 7 cents per quart with an average price for all fruits and vegetables of 6 cents per quart jar. In those communities where all paid labor was used the prices ran from 7 cents to 13 cents per quart jar, with an average for all products of 10 cents per jar. The items included in the cost were labor, sugar, salt and the rubber ring.

Patrons of these community canneries who had to buy new jars were able to purchase them at a price 2 to 3 cents per jar below the regular retail price. This was made possible because many communities bought their jars in car load lots and were therefore able to supply their patrons

at wholesale price.

There should be many more of these centers organized this season. Such an enterprise is worthy the careful consideration of every community interested in food conservation.

Here are a few of the reasons why community kitchens should be established

1. They will produce the maximum of food preservation, because the community becomes saturated with the idea of food conservation. The majority of people become enthusiastic and increase their store of preserved foods and the slackers and indifferent ones are shamed into activity through the work of their neighbors.

2. The community kitchen offers the most economical way of can-

ning and drying one's products.

It economizes in time, energy and fuel. Five women in a community kitchen can do all the canning and drying that would be done by 40 to 50 families. This would relieve 35 to 45 women for work of other kinds. Think of the saving in fuel and energy. We need to conserve our woman power, and this would be one good way of doing it.

3. Many families will be given a winter's supply of fruits and

vegetables who otherwise would not have it.

There are many in every community who do not know how to can and dry. Others who do not have the time, and still others who do not have the inclination. A community kitchen will take care of all such families.

4. The cost of products reduced to a minimum.

This has been shown in the figures already given as obtained from centers operated last season.

5. Give excellent training to women if volunteer labor is used.

Hundreds of women can be given excellent training in canning and drying since they are required to do all the work under the direction of a trained supervisor.

6. Last but by no means least, is the friendly spirit of cooperation which has developed in those places where the work has been done. The influence on the amount of food preserved has been very marked.

Your community should have an organized center this year, even if

it is operated only one or two days per week throughout the canning and drying season.

Let the slogan of every community be "A quart of preserved fruits or vegetables for every day in the year for every family in the community."

Your Farm Bureau and your College of Agriculture will assist you in every way to bring about a realization of this slogan.

Boys' and Girls' Club Department

1

Weymouth Willing Workers are with the colors strong. With head and hand, with heart and health, we'll help the cause along. Right is sure to win at last when fighting with the wrong, We are for peace and freedom. For right 'gainst might our country leads the way, With youth's clear sight we follow, proud to say "Head and hand and health we pledge to do it heartily, Do it for peace and freedom."

2

Uncle Sam has called us, we are swinging into line With clubs where shines the lone star, and clubs where waves the pine; Loyal to the flag that cheers our camps and battle line Symbol of peace and of freedom.

No girl too frail a patriot to be,

No boy will fail a duty clear to see.

Head and hand and health we pledge to do it heartily,

Do it for peace and for freedom.

3

Weymouth Willing Workers are in the fight to stay, Hoe and rake and mixing bowl our weapons for the fray. We'll plant and save and make and bake, since food will win the day, Win if for peace and for freedom. Use corn, send wheat to lands across the sea, Plant more, save more, they ask of you and me. Head and hand and health we pledge to do it heartily, Do it for peace and for freedom.

4

We'll help the boys on land and sea who fight to keep us free; Help the folks at home to see the issue that we see; Help 'till this and every land shall safe and happy be; Happy through peace and freedom.

As day by day our best shall better be, We'll do our part to hasten victory.

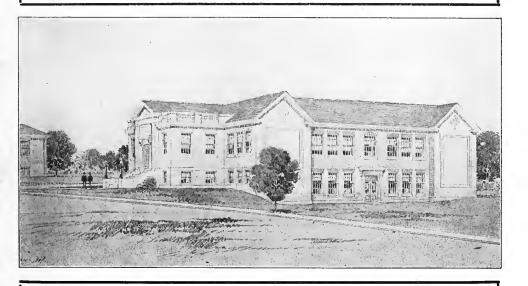
Head and hand and health we pledge to do it heartily, Our tribute to peace and to freedom.

This song was contributed by the Weymouth club members, but could be used for a county song by substituting the words "Norfolk County Workers" for "Weymouth Willing Workers."

NORFOLK COUNTY AGRICULTURAL AND HOME MAKING BULLETIN

VOL. III JUNE, 1918 No. 6

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SCHOOL STAFF

FREDERIC W. KINGMAN	Director
***************************************	.Poultry Husbandry
HORACE C. FUNK	.Animal Husbandry
ANDREW N. SCHWAB	Market Gardening
CHARLES W. KEMP	Weymouth Dept.
MARY E. SHEPARD	Sec'y and Accountant

FARM BUREAU DEPARTMENT

WILLARD A. MUNSON	County	Agricult	ural Agent
STELLA S. SIMONDS	Home	Demonstr	ation Agent
JOHN T. DIZER	Boys'	and Girls'	Club Leader

Timely Topics

Resignation of C. W. Carrick

We regret to announce the resignation from our teaching staff of Mr. C. W. Carrick, head of the Poultry Department. Mr. Carrick had been with the school from the beginning and had organized the work of his department in a broad and comprehensive manner. His successor will find a most suggestive and helpful plan of development as a guide for future work. We congratulate the Extension Service of the State Agricultural College, Purdue University, Lafayette, Indiana, upon the accession to its faculty of a man of Mr. Carrick's type.

New Assistant Appointed

We are very glad to announce that a second worker has been appointed in our Home Making Department. The work of this department has increased so rapidly in the past few months as to make it impossible for the Home Demonstration Agent to meet all the demands. Miss Eunice Homer has been appointed Assistant Home Demonstration Agent in Norfolk County, and will begin her work July 1st. Miss Homer has had charge of household arts work in the Taunton High School for the past three years. She has been interested in club work in Taunton, and has organized and led several girls' clubs. Demonstration work will not be new to Miss Homer, as she had charge of and carried on all the food conservation work in Taunton last summer. The Farm Bureau Department of this school will now be in a position to be of greater assistance in food conservation and preservation work, and we shall welcome every opportunity to render this assistance throughout the county.

Prizes Offered to Women, Girls and Boys on Dairy Farms

This year the State Board of Agriculture is offering \$734.50 in prizes to women, girls, and boys on dairy farms, the owners of which are practical farmers superintending their own dairies and gaining their principal livelihood from the farm. The sum \$734.50 is divided into forty-seven prizes, besides fifty additional ones of \$2 each.

If you are interested to enter this clean milk contest write to P. M.

If you are interested to enter this clean milk contest write to P. M. Harwood, General Agent, Dairy Bureau, 136 State House, Boston, for rules and further particulars. All entries must be in by June 30.

State Tractor Units at Work

Although delivery was a little later than expected, the three tractor units allotted to Norfolk County by the State Board of Agriculture commenced work during the last of April and the first of May. These tractors are working in Franklin, Medway, and Norwood. They are of two different types; one is a Case, and the other two are Fordsons. The reports from those in charge of the work in the respective towns are very satisfactory. Many of the farmers are much surprised at the amount of work they will do and the efficient way in which they plow and prepare the land. The Case outfit in Franklin has plowed as much as eight and a half acres in a day, and the Fordson in Medway has a record of an acre an hour. It has been found that for the tractor to do its best work the field must be fairly free from stones, not less than two acres in area, and somewhere near level.

The farmers have requested the use of the tractors for much more plowing and harrowing than was first expected, and no time can be lost if the land is to be made ready in time. It will be necessary to work them every daylight hour by using two shifts of operators. One of the tractor drivers is a boy sixteen years of age, who had never handled one until he started plowing this season. The comments of those for whom he has done plowing as to the amount of work he does and the way in which he does it, indicate that there are boys who can make good in the

different agricultural operations.

The work of the tractors this season will give many farmers a chance to determine whether one could be used permanently on their individual farms, or whether one owned cooperatively would be worth while.

The Long Time Farm Mortgage

Many of the National farm loan associations are nearing the end of their first year of existence and several have already passed it. The Federal Land Bank of Springfield was one year old in March. It has served as pioneer in a new field of farm finance, and as such has had

much to learn and many obstacles to overcome.

Those farmers who have applied for and have been granted loans through the Federal Farm Loan System will soon feel that they have placed a mortgage on their farms which will not worry them about coming due. It has been a little more than a year since funds from the Federal Land Banks became available to farmers, and the number of local farm loan associations already organized by farmers is about equal to the total number of counties in the United States, averaging one association to each county. Up to April first, applications for loans had been made by 121,759 farmers, and of this number 34,145 had received their money, with more applications favorably passed upon. These loans total \$77,927,167, an average of nearly \$2500.

The District Land Bank in Springfield has approved applications for loans from members of the Norfolk National Farm Loan Association totaling \$35,500. It has taken considerable time to get the local association organized, but once the loan is granted the farmer has a feeling of security that his mortgage will cause him no further thought other than meeting the interest charges when due; and he knows that the principal is being

reduced as each payment is made.

Community Markets

The success attained by the community markets during the season of 1917 leads those who had charge of them to believe that they will be put in operation again this summer and fall. The experiences of last year, coupled with the rapid advance of the present growing season, should lead to earlier opening of the markets. In order that they may be of the most service to the citizens of the various towns where they are to be held, provisions should be made to have the market places ready to open just as soon as the growers have enough produce to supply the demands. For a successful start, it will be necessary to give the markets as much publicity as possible before the opening day, so that both growers and consumers will be on hand to do business.

Mr. R. W. Merrick, who has charge of marketing for the northeastern section of Massachusetts, says that the following methods of publicity

have been found very successful in starting a public market:

1. Large posters announcing the opening of the market and setting forth its purpose. Post in all street cars entering the town, in the post office, on bulletin boards, and in other conspicuous places.

2. Have one or two slides shown at the moving picture theatre, mak-

ing announcements concerning the market.

3. The local papers are always glad to promote anything of the community interest. Get them to write up the market in the news columns.

4. Have announcements made in the local organizations meeting in

the town.

5. Have the school authorities give notice through the school children. The children could write letters to their parents telling of the community market opening day, saying that the growers will be on hand with fresh farm produce to sell for immediate consumption and for canning and drying.

Agricultural Department

The Corn Borer

We now learn that an insect has appeared which if allowed to multiply will become a very serious pest to our future corn crops. Many inquiries have come to us from growers wishing to learn more about the corn borer, and the following article, taken from Station Bulletin No. 178 of the Massachusetts Experiment Station, Amherst, Massachusetts, tells

of the habits and control of this insect.

Description of Insect. When full grown the larva is one inch in length; the body is flesh colored, often somewhat smoky or reddish above while the head is dark brown in color. The female moth has a robust body, is pale yellow in color and has a wing expanse of a little over one inch. The outer third of the fore wing is traversed by two serrated lines darker than the rest of the wing. The male moth has a long slender body, is slightly smaller in wing expanse and in color is reddish brown. The hind wings are grayish and crossed by a broad band of pale yellow.

Life History and Habits. As the life history has not been thoroughly worked out, it is only possible to give a brief resume of it at the present

time.

There are two broods a year of the European Corn Borer. Hibernation takes place as full grown or nearly full grown larvae, within their tunnels in the corn stalks, and in some cases in the cob. These larvae pupate in the spring and emerge as moths, probably the latter part of May. Soon after emergence the females begin laying eggs on the corn stalks, and in a few days these hatch. The young larvae begin feeding at once, and quickly eat their way through the sheath before they tunnel in the main stalk.

On reaching maturity, which occurs the latter part of July, the larvae clear out a portion of the burrow, prepare an opening through which the adults can escape, and after spinning a thin silken partition across the top and bottom of this cleared space, transform to pupae. The moths emerge for the second brood in about two weeks. This brood of larvae becomes full grown by late fall, but does not transform to pupae at once as in the first brood. Instead, the winter is passed as larvae within the stalks, pupation taking place the following spring.

Control. Destroy all residues of the corn crop, including stalks,

Control. Destroy all residues of the corn crop, including stalks, cobs and stubble early in the spring before the moths emerge. Half-way measures are of little value. It is necessary that every one in the in-

fested area co-operate insofar as possible.

Probably corn stalks which have been through the silo or shredded will not carry the pest over but corn stalks rejected by the cattle, corn stalks left standing in the garden and high corn stubble in the field, constitute prolific sources of infestation. The one sure control measure is to gather and burn them—all of them—immediately.

Keep Rust Off the Cultivator

What the present season has in store for the grower of crops no one can foresee—it may be extremely dry or it may not. We do know, however, that there is a certain amount of moisture in the ground which will last for a length of time determined by the amount of pains taken

From the time the crops are planted, it is not too soon to conserve it. to start cultivation, either with the weeder, the spike tooth harrow, or In the corn and potato fields, the weeder or the spike tooth harrow may be operated three or four days after the crops are planted, again just before they are up, and once or twice after they are up. This operation makes a fine dust mulch which will keep what moisture is in the ground from escaping into the air. If this practice is followed with the cultivators at short intervals during the growing season, especially just after a rain, the crop is given the advantage of using much water that would escape into the air if only hit or miss cultivation is given. Besides primarily conserving moisture, the above outlined method of cultivation kills weeds to such an extent that many have found it unnecessary to hand hoe their corn and potato fields. The hand labor on any crop runs into money very rapidly, and the more it is eliminated by the use of machinery the more certain is the profit. Labor is scarce and hard to get, but by making the most of that which is available with the more efficient use of farm machinery in caring for crops, there is an opportunity to accomplish much more than has been planned.

The more cultivators are used, the less rust they collect, and the

more they are polished by use, the better the crop results.

Apple Packages for the Coming Crop

There is every indication that the forthcoming crop of apples will be a large one. The bloom has been unusually good, the weather during the blossoming period mostly fair with many ideal days for pollination, and, barring some unforeseen accident, we can count on a good yield. If this crop does materialize we shall be confronted by a number of problems, but the one which ought chiefly to concern us just now is the question of packages. What are we going to put these apples into as they are picked, and what are we going to market them in?

The officers of the Massachusetts Fruit Growers Association wish to take this occasion to urge every apple grower in the state to consider this question at once and most seriously. And they have these five

suggestions to make which may prove helpful.

1. Wherever possible buy new apple barrels. The price will doubtless be high, in some cases perhaps even prohibitive, but this source of supply ought to be worked to the limit whenever the price is not absolutely beyond all reason. And get in your order for these at once.

2. Buy up every second hand barrel you can lay your hands on. The cleaner the better, of course, but most of them can be cleaned up, and while they may not do to market apples in, they will do to put them in

as picked, and to store them in.

3. Buy half bushel peach baskets and bushel hampers. These are not quite so handy as barrels to store in, but they are a long ways better than nothing, and they make an excellent package for nearby marketing. The bushel hampers are the best for storage and if the covers are put on them they are not at all bad.

4. Buy up any ordinary boxes which are strong enough to stand handling and are not too large. The more uniform they can be in size the better, of course, but most anything will come handy next autumn. These boxes will be useful only for storage purposes, but that is a mighty

important function.

5. If your trade will warrant it, buy new apple boxes. It isn't every man who can utilize these in his marketing, but every bushel of apples sold in these packages releases just so many barrels for use elsewhere.

Now don't say, "Yes, that's good, I must attend to that matter," and then forget all about it till next September. But, as they say of other kinds of war work—"Do it now!"

PROFESSOR S. C. SEARS.

Massachusetts Agricultural College, Amherst, Mass.

Production of Clean Milk

Clean milk can be produced in practically any dairy barn in the county. Experiments by the United States Department of Agriculture, by State Experiment Stations, and the experience of some of the dairymen of the county, show that the production of milk of low bacteria count depends more upon the selection and care of utensils than upon the type or "up-to-dateness" of the buildings, providing they are kept reasonably clean. The following are some of the requirements that seem essential in the production of clean milk:

Small month pail. The Dairy Division of the United States Department of Agriculture, in an experiment to determine the requirements for clean milk production, found that by substituting a small mouth pail for the ordinary open kind the number of bacteria was reduced by one fourth.

Sterilize utensils with steam or rinse with boiling water. In the experiment mentioned above, it was found that by sterilizing the pails and cans with steam, in addition to washing them well, the number of bacteria was reduced from 300,000 to 17,000 per cubic centimeter. Also, at the Illinois Experiment Station, 81 cans of milk, when all the utensils were steamed, showed a bacteria count of 6,800; while 117 cars, when the utensils were not steamed but otherwise similarly treated, showed a count of 285,000 bacteria. These experiments, all conducted under ordinary farm conditions, show very strikingly that by far the greater number of the bacteria come from the utensils. It seems absolutely necessary, then, that utensils be either subjected to steam or at least rinsed well with boiling water to kill these bacteria, for ordinary washing will not do it.

The Dairy Division of the United States Department of Agriculture at Washington, D. C., will furnish information about a simple, inexpensive steam sterilizer, or about any other factor concerning the production of clean milk.

Cleaning Utensils. The following is the usual method of cleaning utensils: (1) Rinse with luke warm or cold water to dissolve and wash out the albumin or caesin. (2) Scrub with brush, using hot water and soap powder, to get rid of the fat and any other solid matter. (3) Steam or rinse with boiling water to kill the bacteria. It might be well to mention that the joints and corners should be filled with solder, for in these milk is apt to lodge and bacteria to thrive.

Cooling Milk. Milk should be cooled to as low a temperature as possible, for a fairly high temperature induces the bacteria—there are always some in the cleanest milk—to multiply very rapidly, while low temperatures tend to check their reproduction. The following experiment by Stocking, starting with milk of low count, shows the importance of keeping milk cool, in order to have it keep well.

		re main-	Bacteria per C. C.	Hours for milk to	
tained	l for	12 hrs.	at end of 12 hrs.	curdle at 70 degrees	F.
40 d€	egree	es F.	4,000	75	
47	",,	,,	9,000	75	
50	,,	**	18,000	72	
$54\frac{1}{2}$,,	,,	38,600	49	
60	,,	"	453.000	43	
70	,,	,,	8,800,000	52	
80	,,	"	55,300,000	.28	

Care of cows and stable. Both should be kept fairly clean, though it is neither necessary nor profitable to have them immaculate. The cows' udders and flanks should be wiped with a damp cloth just before milking, to keep as much dirt as possible from falling into the milk while milking. The stable should be kept free from odors that might contaminate the milk.

To produce the cleanest possible milk, it seems absolutely necessary to have small mouth milk pails, and to sterilize the utensils with steam or boiling water.

Summer Care of Growing Poultry

Too often the growing stock is neglected during the summer months when good care is most important. After the chicks have been well cared for up to this stage, it is a big economic and financial loss to the poultry keeper to check development by improper care. The pullets, and such cockerels as are to be kept for breeding, should be given every suitable condition to promote growth and development. Surplus cockerels should be marketed as broilers. The pullets will do better if all male birds are removed as soon as the sex can be determined.

Lice and mites are among the worst enemies to growing chickens. Elsewhere in this bulletin will be found directions for their control. A

constant lookout should be kept for these pests.

Housing conditions are very important. Many chickens are weakened and die each year because of damp and filthy quarters. Crowding too many in a small space is very injurious. The chicks should be taught to roost when they become ten to twelve weeks old. Use flat perches three or four inches wide to prevent crooked breast bones. See that the houses are kept clean, well lighted, dry and well ventilated.

Plenty of clean water, protected from the sun is essential. There are many suitable fountains which may be purchased for this purpose. Be sure that there is a large supply and that the container is kept clean. A barrel, fitted with a faucet which permits one drop at a time to escape, will save a great deal of labor when a large flock of chickens is being reared. Earthenware or enamel pans are suitable where small flocks

are kept. Keep all watering devices in a shady place.

Free range with shade should be provided to raise the most vigorous stock at smallest cost. If allowed to run free, the chickens will pick up a large part of their living in the form of bugs, worms, seeds, and green food. An orchard or corn field makes almost ideal conditions for growing stock. Where the yards are bare, green food must be supplied. Grow dwarf Essex rape, kale, chard, or some other succulent plant for them. Cut the rape without injuring the crown and new leaves will keep coming out. Clover, lawn clippings, or garden waste will make excellent green food for either mature or growing stock. Shade can be artificially provided by constructing a shed—all sides open—of rough boards, or by covering some saw horses with pine boughs.

A good growing mash should be kept available for the growing stock. The following has proved very satisfactory:

3 lb. Wheat Bran

3 " Wheat Midds.

3 " Hominy Feed or Corn Meal

3 " Beef Scrap

1 " Bone Meal

Hominy feed should be used if cheaper in price than corn meal, otherwise use the corn meal. One half of either may be substituted by gluten feed with good results. Keep this mash in a hopper. If it is desired to hurry the young stock along, a moist mash of the above formula may be given once a day, preferably at noon, in such quantity that the birds will clean up in fifteen to twenty minutes. This mash should be crumbly in texture rather than sloppy. Feed it in shallow boxes or on wide boards to prevent waste. A liberal amount of scratch grain should be given morning and night—as much as will be eaten in a few minutes. Feed this in litter, if possible, to induce exercise. Cull out birds from time to time if they show weakness or fail to develop properly.

Lice and Mites

Thousands of chicks and fowls are lost each year because of the damage done by lice and mites. With the present need of food production and conservation, we should put forth every effort to eliminate this great waste in our food supply. It can be easily done if poultry keepers will understand the habits of these pests and apply the preventive measures at the proper time. Now is the time to begin fighting them, since they will increase in numbers and damage as the warm weather comes on.

Lice are true insects and live continuously upon the body of the fowl. They do not suck blood from the fowls but feed upon bits of skin and Their chief injury is done by irritation of the skin by means of their long, sharp claws. When numerous they soon cause such annoyance to the fowl that the constitution is weakened, and the bird rendered very susceptible to disease. Like all true insects, they breathe through small pores along the sides of the abdomen. There are two principles to be considered in controlling lice. The first is that of stopping the breathing pores of these insects, thereby causing death, by the use of fine particles of dust. A dusting box filled with fine sand and ashes, placed where it will keep dry and accessible to the fowls, will do much toward controlling this pest. The other principle of control lies in the use of some substance which has an odor unpleasant to the lice, causing them to leave the fowl so that they starve or chill to death. Most commercial lice powders employ this principle and contain some chemical with a repellent odor. When birds are to be "dusted" or treated with a preparation it is best to do this at night, since they can be easily and quickly handled with very little disturbance.

The United States Department of Agriculture has recently found that sodium fluoride is very effective in getting rid of lice on fowls. It comes in powdered form. Apply a small pinch at the base of the feathers below the vent, at the base of the tail, under the wings, and in the back It irritates the nose and throat and should therefore be of the neck. handled carefully. Commercial lice powder may be applied in the same A good homemade lice powder can be made as follows: gether one and a half pints of gasoline and half a pint of crude carbolic acid. Stir this into four quarts of plaster of Paris or land plaster. Pass it through a fine screen three of four times and allow it to dry a few hours. Keep in a tight jar to prevent its weakening.

Another good remedy for adult fowls is a mixture of equal parts of mercurial, or commercial blue, ointment with vaseline or lard. Mix the vaseline and ointment thoroughly and apply a small amount (the size of a pea) around the vent of the fowl and under each wing. Do not leave in a lump since the fowls may pick at it and become poisoned. Do not use this on chicks.

Head lice on chicks may be controlled by applying a small amount of lard or vaseline to the top of the head, under the wings, and around the vent. Only a small amount should be used since it might prove fatal to the chick. Chicks with hens are troubled mostly with lice and should be constantly watched. Keep the hen thoroughly dusted with lice powder.

Mites belong to the same group of animal organisms as the spider, and derive their living by sucking blood from the fowl. They stay on the birds only at night, hiding in cracks and crevices around the perches and roosting quarters by day. They may be seen in clusters underneath the perches. Frequently, they infest the nests and feed on the hens in the day time. The nests, dropping boards, and perches should be thoroughly sprayed or painted with kerosene oil or some coal tar wood preservative—gas tar. The kerosene must be applied every two weeks since it evaporates quickly. Coal tar diluted one half with kerosene will last much longer, and should be used now and again after a month or two. The perches should be constantly examined in hot weather to see that these pests do not get a start. Coal tar disinfectants and stock dips are effective if sprayed on the roosting quarters every two weeks.

Sell All Male Birds

Unless very valuable as breeders, no male birds should be carried through the summer to eat high priced grain. They cause much loss in the production of fertile eggs. Infertile eggs, produced without the presence of the male, will keep better in hot weather and will not form "blood rings." Select the fastest growing young males for breeding purposes next spring and sell or eat the old males now with the flocks. It is a serious mistake to market the fastest growing of the early broilers because of their small increased selling price.

If valuable males are to be carried over, these should be kept separate from the hens to prevent fertile eggs during the summer months.

C. W. CARRICK.

The Labor Situation

During the past few weeks, the United States Public Service Reserve Committee has been endeavoring to register labor for farm help. At the same time this campaign was started, the County Agent mailed an inquiry to the farmers of Norfolk County asking the number of men they needed. Up to date there have been applications for nearly thirty men, and fourteen men have registered to work on farms, some for the season, and some for shorter periods varying in length from two to six weeks. The men who have been placed on farms so far are giving satisfaction according to those who have employed them.

There seems to be no large amount of labor available, especially skilled agricultural help, but every effort possible is being made to locate men who will do their best to give satisfaction. Some of the boys enrolled for farm labor are already at work, and the reports concerning them indicate that they can be depended upon when given an opportunity

to show their worth under good direction.

Home Making Department

The Latest Message from the Food Administration Regarding the Supply and Use of Our Food Stuffs

Milk

There is at present a surplus of milk in New England. The house-wife should make every effort to use this surplus and to create a demand for more milk. If this is not done, the milk producers will go out of business and we will suffer a milk famine. We are told from good authority that it is impossible for an adult to purchase a glass of milk in England, not even if he were willing to pay twenty dollars a glass. Let us guard against a like condition by using more milk.

Butter

As a result of our surplus of milk, we are now having more butter in New England. To prevent a waste, and to encourage the farmer to continue in the dairy business, we should use butter more liberally.

Sugar

Since the beginning of the war, there has been a shortage of more than 2,000,000 tons of sugar annually. We cannot expect the sugar supply to be normal while the war lasts. Sugar may be bought at the rate of three pounds per person per month. In addition purchases for canning may be made on signing sugar cards in an amount of not more than twenty five pounds at any one time.

Meat

Meatless days are temporarily suspended, but it is again necessary to save meat. Use fish, fowl, and eggs as far as possible instead of meat.

Rice

There is a goodly supply of rice in the market at the present time, and the price of rice promises to be lower very soon. Rice flour is now coming into the market and can well be used in bread making.

$\mathbf{R}\mathbf{y}\mathbf{e}$

At this season of the year, rye cannot be shipped across on account of the liability of spoilage. In some parts of Massachusetts, there is quite a large supply of rye, so wherever it is available it may be used freely.

Barley and Corn Products are now available in abundance and should be used.

WHEAT

Use the least possible amount. Better still-do without any.

Every woman interested in food conservation should receive the weekly bulletin from the office of the Food Administration. The bulletin will be sent regularly to any one requesting that his name be put on the mailing list. Appy to Henry B. Endicott, Food Administrator, State House, Boston.

Corn Meal a Cheap and Plentiful Food

Corn is a cereal well known to the women of this country, but it is not as generally used as it was a generation ago. The Food Administration is asking us now to use more corn meal in our diet. Why? Because it is a cheap plentiful food, and we have a plenty of it in this country. Although we have been paying as much for corn meal as we have for wheat flour, it is going to be cheaper, and instead of nine cents a pound we will be able to get it for six and a half or seven cents. Do not buy in large quantities, as it will not keep well at this time of year. We can use it in our breakfast, dinner, and supper dishes.

Cornmeal Mush

1 c. corn meal 1 t. salt $3\frac{1}{2}$ c. water or 4 c. skim milk

Mix the corn meal with enough of the cold liquid to pour easily. Add to the boiling liquid, stirring constantly until it thickens. Cook four hours in double boiler. Corn meal mush served with brown sugar and top milk or cream makes a very delicious breakfast cereal.

Cornmeal and Apple Pudding

Cook $\frac{1}{2}$ c. corn meal in 2 c. skimmed milk in double boiler three hours. Let the mixture cool and add:

1 egg well beaten ½ c. molasses

½ t. salt 2 apples sliced thin

Pour into an oiled baking dish and bake in a moderate oven for two hours. When partly cooked, pour over it half a cup of milk without stirring the pudding.

Corn Meal Mush with Cheese

Mix one cup of corn meal and one teaspoon of salt, add slowly to four cups of boiling water. Stir until smooth, and cook in a double boiler or freless cooker several hours. Add one half cup of grated cheese and one fourth teaspoon of paprika. Spread in a shallow pan three fourths of an inch thick. When cold and firm, cut in slices and cook in a frying pan with bacon fat or drippings until brown on both sides. The mush may be cut in slices, put in a baking dish, sprinkled generously with grated cheese, and baked in the oven until the cheese is melted.

Southern Pone

1 pt. milk

1 egg

1 c. corn meal

2 t. baking powder

1 t. salt 3 T. shortening

Scald milk, add meal, salt, and shortening. Cool slightly and add well beaten egg and baking powder. Bake in buttered earthen dish thirty to thirty-five minutes.

Corn Meal Scrapple

1 lb. lean pork or beef

½ t. powdered sage

(part meat and part bone) water

1 c. corn meal

1 t calt

Cook the meat in water until the meat can be removed easily from the bones. Remove the meat, cool the broth, and remove the fat. Reduce the broth about a quart, or add water enough to bring it up to this amount, and put the corn meal in it. Add the meat finely chopped, and the seasonings. Pack in granite bread tins. Cut into slices and fry.

Directions For Canning Asparagus

1. Select only young tender asparagus.

2. Grade according to size.

3. Blanch for fifteen to twenty minutes in steam.

4. Plunge into cold water.

5. Remove and pack into clean hot jars, tips up.

6. Add one teaspoon of salt to each quart jar and fill the jar to within one half inch of the top with boiling water.

7. Select a good rubber ring, adjust rubber, cover, and partially

tighten clamp.

8. Place jar on rack in a kettle of boiling water with water two

inches over top of the jar.

9. Sterilize two hours, counting the time when the water begins to boil. Add water as it boils away, keeping the jar surrounded and covered.

10. Remove jar, tighten clamp, cool quickly away from a draft.

How to Obtain Sugar for Home Canning and Preserving

1. Obtain a blank form from your County Food Administrator.

2. Fill this out, stating how many pounds you desire to purchase for this purpose, up to 25 pounds. (In case of a Canning Club, up to 100 pounds).

3. Present this form to your regular grocer, on receipt of which he

is authorized to sell you the desired quantity.

4. If you need more after this supply is gone, apply for a second form.

Boys' and Girls' Club Department

Club Work Featured in Service Flag Exercises

Weymouth school children in the parade preceding the unfurling of the town service flag on May 18 featured club work as an important work they were doing to help win the war. A group of boys and girls as farmers and farmerettes with their hoes, rakes, and other garden implements, brought out the idea of garden clubs as work for the children to do in The Pig Club was represented by a good sized the summer months. group of club members with life size cardboard pigs and other material for their club work. The Canning Club girls with jars of canned fruits and vegetables emphasized the fact that conservation can be practiced by the children as well as the grown-ups. The other clubs, too-corn, potato, poultry, etc.—were represented by their special groups of work. These various groups brought club work home to a great many people who had never thought about it before, and besides adding a great deal to the parade the demonstration will undoubtedly help the club work in Weymouth.

Garden Club Members to be Better Cared For

Market Garden Club members will have better supervision and more help this coming season than they have had in any year past. In addition to government and state bulletins and circulars, the State Club office is planning to send out each month a new letter with timely hints, suggestions, and general information for the club members. It is also hoped that garden specialists can meet with groups from time to time to give them special information on garden work in their respective communities.

The record keeping end will also be followed up more closely and it is hoped that by giving help when it is needed a large percentage of the club members will finish the project.

Corn Club

A number of club members who started in with pigs in the Pig Club have decided that they can grow corn for their pigs cheaper than they can buy it in the fall, and so have planted large areas and joined the Corn Club. The combination of pig and corn clubs seems to work out to good advantage, and it might be advisable for a good many more pig club members to take up with the same idea.

Pig Club

Hogs grown in Massachusetts in 1917 numbered 113,000; hogs brought in for slaughter numbered 1,750,000, costing about \$70,000,000.

Pig club members have grown about four per cent. of all the pork

raised in Massachusetts.

Hog growing at the present time is a profitable undertaking and will remain so at least as long as the war lasts. Last year pig club members made an average profit of \$12.00 per pig. For the best profit in growing hogs, we must:

1. Have good breeding stock, preferably of lard type (There is no best breed. Get good individuals of any breed).

2. Keep pigs healthy by:

a. Having them inoculated for cholera.

b. Keeping pens sanitary.

- c. Giving them a clean, dry place to sleep.
- d. Providing an abundance of clean, cool water.

3. Utilize home grown feed:

a. Corn c. Barley e. Clover or alfalfa hay b. Rye d. Mangels

4. Have good pastures in summer:

a. Rape b. Oats and peas c. Clover Some facts about the boys' and girls' Pig Club in Massachusetts.

Organized 1915 members 300 1916 750 1917 2250 1918 (at least) 4000

What Our Home Economics Clubs Have Been Doing

Thirty-three Home Economics clubs were started in Norfolk County February first with seven hundred boys and girls enrolled, these members representing sixteen towns. Each member pledged himself to do sixty hours of work before May 1st, twenty hours to be spent in either bread making or garment making, and forty hours in doing odd household tasks. The clubs have been visited where possible once a month by the Home Demonstration Agent or an assistant, help being given in bread making and sewing at these meetings. Each member kept a record of the time spent in each activity and at the end of the contest wrote a story telling of his experience in the club. During the second week in May a local exhibit was held in each town where there was a club, and each member exhibited the results of his three months' work. A loaf of war bread was exhibited by each member who had elected bread making, and a garment, patch, and darn was exhibited by each member who chose sewing Three hundred and seventy individual exhibits have been scored by the State Girls' Club Leader and the Home Demonstration Agent. Some excellent war bread with from thirty to fifty per cent. substitute cereals was shown, and several of the prizes in bread making were carried away by the boys in the clubs. In one club where twenty-five loaves of bread were exhibited, boys won the first and third prizes, the second prize only being won by a girl member of the club. The first three prize winners in each club were given cards which are issued by the Junior Extension Service. In several towns the interest of the women's food conservation committee was solicited, and as a result they offered for the first prize three thrift stamps, the second prize two thrift stamps, the third prize one thrift stamp.

We are planning to assemble the best results from the various clubs in bread making and sewing, and from these determine who shall be the first prize winner in Norfolk County. The one fortunate enough to win this prize will be rewarded with a week's vacation at the summer camp

at Amherst.

Much credit is due the local club leaders, who have volunteered their services and made their clubs a success. The good work done in many of the clubs and the fine exhibits which they held for the public were made possible by the effort and time which the leaders devoted to the clubs

This is the first year that Home Economics club work has been done to any extent in Norfolk County, and we consider that quite a good showing has been made for our first attempt. With the added assistance in our Home Making Department this coming year, the work can be much more closely supervised and better results obtained.

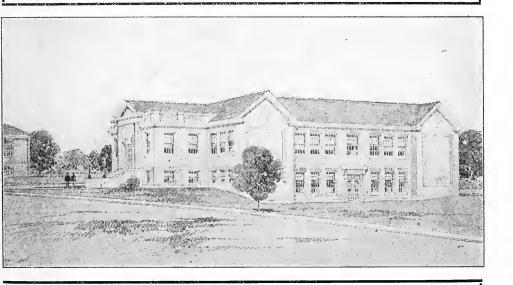
NORFOLK COUNTY AGRICULTURAL AND HOME MAKING BULLETIN

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No. 7

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SCHOOL STAFF

FREDERIC W. KINGMAN	Director
BENJAMIN R. GRAVES	Poultry Husbandry
HORACE C. FUNK	Animal Husbandry
ANDREW N. SCHWAB	Market Gardening
CHARLES W. KEMP	
MARY E. SHEPARD	Sec'y and Accountant

FARM BUREAU DEPARTMENT

WILLARD A. MUNSON	.Count	у А	gricult	ural	Agent
STELLA S. SIMONDS	Home	De	monstr	ation	Agent
JOHN T. DIZER	.Boys'	and	Girls'	Club	Leader

Timely Topics

Appointment of Poultry Instructor

Mr. Benjamin R. Graves of the Extension Service of the New Hampshire State Agricultural College, has been appointed Instructor of Poultry Husbandry, to succeed Mr. C. W. Carrick who resigned May 1st. Mr. Graves is a graduate of Connecticut Agricultural College. He has had practical experience as a poultryman on a large plant in Maine, and was for more than a year connected with the Essex County Agricultural School. Mr. Graves comes to us with excellent recommendations.

Field Meeting of the State Grange

Wednesday, July 26, 1918, the Massachusetts State Grange will hold a Field Day at the Agricultural School, to which the public are cordially invited. The Pomona Granges participating in this meeting include Middlesex-Norfolk, Worcester-Norfolk, and Norfolk. There will be a basket luncheon.

Garden Supervisors Meet

On June 11, the garden supervisors of Norfolk County met at the Norfolk County Agricultural School for a conference to discuss insects and diseases detrimental to garden crops. This conference proved to be one of the most instructive so far held this season. Representatives from the Departments of Entomology and Botany of the Massachusetts Agricultural College were present and gave many timely suggestions for fighting garden pests. Exhibits of insects and fungus diseases as they are found on the plants were used to show how to identify them and the reasons for the methods of control.

Mr. Lowry emphasized especially the necessity for early applications of arsenate of lead for the control of eating insects, and nicotine sulphate in the case of sucking insects. All sucking insects such as plant lice,

must be hit directly with the spray if results are to be obtained.

In fighting blights, Mr. McLaughlin urged the use of Bordeaux mixture applied as a preventative rather than as a curative measure. He also made it plain that even after the disease appeared on plants, some good could be accomplished in checking its rapid spread by thorough spraying. The exhibits with explanations of how fungus diseases propogate and spread, made the fact very apparent that thorough spraying with a mist spray at frequent intervals is absolutely necessary if the best results are to be obtained.

We feel that many gardeners would have been benefited, could they have heard the discussions of insects and diseases by Mr. Lowry and Mr. McLaughlin. The citizens of those towns which were fortunate enough to have a supervisor present will receive this information as it can be

applied to individual gardens as troubles arise.

Community Markets Are Opening

Community markets have opened in several cities and towns in Massachusetts. The one already operating which is nearest to the growers of Norfolk County is in Quincy. This is open on Wednesdays and Saturdays. We understand that similar markets will be opened in the following towns: Brookline, Dedham, Cohasset, Framingham, Medfield, Milford, North Attleborough, Norwood, Quincy, Stoughton, and Walpole. These will serve growers and consumers of our county as supplies of vegetables become available.

Last year these markets proved of great value as an outlet for a great deal of produce direct to the consumer. They gave an opportunity to growers to dispose of large quantities of fresh vegetables at a little higher price than through the ordinary retail channels. There is no doubt that these advantages will continue and their value be realized to a larger extent than during the previous season.

Many Pine Seedlings Distributed

The State Forestry Department had the good fortune to dispose of about 550,000 transplants to nearly 300 land owners in this State during the past spring. About 300,000 of the trees were white pine and the remainder Scotch and other species. In view of the general labor situation the amount and widespread distribution of these orders has been a source of gratification to the department. The above figures do not include the planting done by this department or by other state departments which has required the use of about 500,000 more of our transplants. As one sees the large amount of land that is being cut over in these times of high lumber prices, it is worth realizing that considerable is being done along the lines of reforestation.

Agricultural Department

Millet For Hay

The light hay crop which most farmers in this vicinity will harvest means that there will be a shortage on some farms before next spring, unless enough has been carried over from last season to piece out that of the present. For those who desire to raise a crop to help fill up the

hay barn we would suggest the sowing of millet.

Millet has served many times as a substitute when some other crop has failed to make a start. In the case of a poor stand of crops which were planted early and failed to grow on account of poor seed, late spring frosts, too much wet or dry weather, then the field can still be made to return something by seeding to millet. Millet makes fair hay for cows if cured before the seed matures or just after the blossoms appear. The soil for growing millet should be fertile and well prepared, as the plant grows rapidly and is a heavy feeder. A crop can be secured from seed sown at any time between May and the middle of July. Probably the last of June and the first two weeks of July is the most favorable time for seeding. If the seed has been sown early a crop may be expected by August 1st, though September 1st is nearer the average date of harvesting. The quantity of seed for seeding varies from three pecks to one bushel per acre. The amount of hay made from an acre of millet varies widely, but an average yield is about three tons.

Cover Crops in the Orchard

BY F. C. SEARS, MASSACHUSETTS AGRICULTURAL COLLEGE

The time is approaching rapidly when the orchardist should have his plans for orchard cover crops perfected, and be ready to carry them out. If he is going to need to buy seed he ought to do so at once as seed is

already scarce and high, and getting more so every day.

Under these conditions it is certainly wise to choose the cheapert crops that will be at all satisfactory and to use even these as sparingly as possible. I wish, therefore to urge on the orchard owners of the state, as I have done on several former occasions, the possibility of utilizing

weeds in orchards for cover crop purposes.

The functions of a cover crop that we regard as of the greatest importance are, roughly in the order of their importance: 1. Preventing washing of the soil. 2. Adding humus to the soil. 3. Checking the growth of the trees. 4. Adding nitrogen to the soil. It does some other things but these are the most important. Now a good crop of weeds will do all of these things, except the last one. It won't do them quite as well as the best of cover crops but neither does potato flour make the best of white bread. Yet we are using potato flour these days and I believe we ought to use weeds. The only block of orchard that I should worry about this year on the cover crop question, is the block that won't grow a good crop of weeds. On such a block it will be necessary to sow some other crop and probably the choice would be between dwarf rape (2 lbs. per acre) buckwheat (1 bu. per acre) or barley (1½ bu. per acre). The great argument in favor of rape is its cheapness but it is good in

other respects. It doesn't add the humus that either of the others do

but it is very fair in that respect.

Whether we use weeds, or one of the three crops just mentionel, I should consider the question of sowing a little clover to help out on other functions and to add nitrogen. In my own orchards, I am planning to use crimson clover at the rate of 4 or 5 lbs. per acre on any blocks that I think need nitrogen and yet are in good enough condition to bring along a reasonably good crop of clover. This may be considered a nice distinction to make, but I think it can be made. On the one hand, clover won't grow on very poor soil, and on the other hand really good soil may not need it. And if I can end the season with a reasonably good stand of clover, and a good crop of pigweed, I shall be more than satisfied.

Succession Cropping

Market gardening and home vegetable gardening are necessarily intensive forms of cropping; consequently the work should be planned so that there will be no loss of space or loss of time in starting a succeeding crop. It is the aim of the gardener to get the longest yield and the largest return from a given piece of ground. To do this, he should follow up his early crops, such as lettuce, peas, and early beets, with crops such as cabbage, cauliflower, turnips, late radishes, etc. In choosing your succeeding crop, do not grow a cool season crop, such as peas, in the middle of the summer, for such a crop will not produce the maximum amount of produce during the hot weather. One should also be careful about insects. If you are troubled with insects on your first crop, be sure to plant a crop that is not susceptible to attack from that type of insect.

In some cases, three crops in succession may be grown on the same land the same season, and the ground completely cleared for the next planting. In order that this may be done, all these crops must have relatively short periods of growth, and the first and last crops must be capable of withstanding pests. Such a combination might be leaf lettuce, string beans, and fall turnips. In succession cropping, however, the gardener should be sure to keep his land in a high state of cultivation and have it well fertilized at all times.

Make Use of Vegetables

A great effort has been made by the market gardeners of Massachusetts to maintain the previous production of their farms. We understand from a survey made over the state of Massachusetts, that out of 800 inquiries mailed to market gardeners, two thirds were answered giving the total acreage of this year's plantings as 4300 acres as against 4600 acres planted last year.

The growers have put these crops into the ground, knowing that their last year's returns were hardly above those of previous years, even though the cost of producing has greatly increased through increasing prices of fertilizers, machinery, labor, etc. They also know that many back yards are producing vegetables which will have some effect upon the demand

for their crops.

In order that every bit of this produce may find a profitable market, it is the duty of every housewife to use vegetables in every possible way, and when there are over-supplies on the market, she must can and dry for next winter's supply. We are in a vegetable producing section of the country and not one where cereals or beef are raised to any extent. This makes the use of vegetables most economical, which is especially to our advantage when we are requested to save meat and wheat.

If there is one thing we would like to impress upon every house-wife, it is to watch the markets and be ready to use vegetables for can-

ning and drying when they appear in large quantities.

Visit the Market and Your Commission Man

The season is at hand when farmers are beginning to send produce The question of returns for this produce depends upon its quality and attractiveness coupled with the ability of the salesman. order that a salesman or dealer may do his best, he must know that the goods he is selling will be all that he says about them when his customer That a thorough understanding may be arrived at, it is inspects them. necessary that producer and commission man or dealer meet before the time comes for marketing the produce, get well acquainted, and discuss

market requirements.

Be sure that your produce is put up in attractive form and learn whether it reaches the market in as good condition as it was when leav-Many times farm crops will deteriorate in transit to such ing the farm. an extent that they are in very poor condition at the time of arrival on This means that the best salesman, no matter how much he the market. may wish to obtain the best prices, will have to sell them at a low figure, as there are nearly always first quality articles on the market which de-Goods coming on the termine standards for the maximum returns. market in poor and unattractive condition are compared with these first quality goods and the price they bring is in proportion to their value as

compared with the produce which is up to standard.

The writer, when marketing a crop of Yellow Transparent apples was receiving very good returns, until one morning upon opening the mail he was surprised to receive a check from his commission man much under the quotations for the day on which the shipment was sold. The next shipment was due to be sold the day this check was received, and in order to determine the cause for the reduction in returns, the first train was taken for the market. The shipment was just about to be sold at a low price. Upon investigation it was found that the apples were being allowed to ripen too much before picking, and being shipped in hot freight cars they were deteriorating very rapidly. The trip to the market, seeing the goods as they arrived, and comparing them with others on the market at the same time, made it quite clear that the returns were all that could be It was an easy matter to make corrections that assured the condition of future shipments.

There are many things that enter into the successful marketing of farm crops; some of them are summed up as follows in 'a publication

issued by the United States Department of Agriculture:

SUGGESTIONS FOR SHIPPERS

For those who contemplate the use of commission men as marketing agents, the publication offers the following suggestions:

- 1. Know your agent. Select one who has a reputation backed by experience, an advantageous location and competent help. A personal visit will help the farmer in deciding these points.
- 2. Know your market. From your carefully selected agent, learn the needs of the market, most desirable varieties to raise, proper containers in which to pack and ship, style of pack most desired, the use of labels or brands, proper amounts and time of shipment and local preferences.
- 3. Make regular shipments. Keep your city agent regularly supplied with what his trade will take, thereby helping him to stabilize the business in which you are both concerned.
- 4. Keep each other informed. Successful shippers make frequent use of the telegraph or long-distance telephone to keep agents posted as to changes in shipments. The agent should also keep the shipper informed as to any changes in requirements of the market.
- 5. Avoid frequent changes in agents. While it may be wise under certain conditions to check one agent by the sales of another, the most successful consigner is the one who selects an agent with great care and then sticks to him, cooperating in every possible way and carefully scrutinizing all settlements. The honest agent is glad to do his part in such team work and welcomes the most exacting examination of his methods.

Weed Out the Slackers

As a result of the investigations on a number of farms in Illinois it was concluded that almost one third of the cows in the ordinary herds of the state were unprofitable and that on nearly every farm there were at least a few cows that were kept at an actual loss. This is true not only in Illinois, but in all the dairy sections of the country.

Find out which are the slacker cows, and sell them. You will make a larger profit from the rest of the herd, you will not have to buy as much feed when feed promises to be scarce, and you will not require as much

labor.

Beware of Kiln-Dried Corn for Poultry

Many reports have been received lately concerning the quality of corn supplied at the present time. While it is not an established fact as yet, many poultrymen claim that many chicks have been lost by feeding kiln-dried corn. Experts believe that in the kiln-drying of corn a certain chemical change takes place, producing a chemical which is detrimental to poultry, especially young chickens. What this product is no one has been able to tell us as yet. Of course, those who have their own grain are not troubled in this way. Isn't this still another incentive to raise your own grain?

How to Tell Moldy Corn Meal

Owing to the fact that the early frost prevented the thorough curing of corn, much of the corn meal on the market today is kiln-dried. If the germ of the corn has been removed before the corn is ground, the corn meal will not take on the usual appearance if it becomes moldy. It will still remain the same golden yellow color. Nevertheless, if it is moldy it should not be fed to poultry. It is easy to determine whether the corn is moldy or not. Place a heaping tablespoonful in a dish and pour some hot water over it. Then if the meal smells sour, it is moldy and should not be used.

Weight of Growing Chicks

The U.S. Department of Agriculture has just sent out some interesting data on weight of chicks, obtained on their farm at Beltsville, Md. Weigh up an average of your own chicks and see how they compare with these figures:

White Rock Cockerels	Pullets
At 7 weeks 1 pound	At 8 weeks 1 pound
10 " 2 "	12 " 2 "
13 " 3 "	15 " 3 "
15 " 4 "	19 " 4 " 23 " 5 "
18 " 5 "	23 " 5 "
20 " 6 "	
24 " 7 "	
R. I. Reds: Cockerels	Pullets
At 8 weeks 1 pound	At 9 weeks 1 pound
12 " 2 "	14 " 2 "
15 " 3 "	19 " 3 "
	25 " 4 "
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
25 " 6 "	
White Leghorns: Cockerels	Pullets
At 8 weeks 1 pound	At 9 weeks 1 pound
12 " 2 "	15 " 2" "
14 " 2½ "	20 " 2½"
17 " 3 "	25 " 3" "
20 " 3½"	
23 " 4 "	
20	

Home Making Department

A Can of Fruits and Vegetables for Every Day in the Year

This recommendation has been advocated for many years by our dietetic specialists as a safeguard for our health. This year it is doubly necessary that we make this provision, for we are told that the government has taken over seventy per cent. of the commercially canned products for government use, leaving us with less than one third our usual supply. If we could only realize during the season of production that we may have a food shortage this coming winter, and make provision for it now, there would be less inconvenience and even suffering from an insufficient food supply.

Many people canned last year who never canned before. The majority of these people will can again this year with better success because of their previous experience and a better understanding of the canning process. There were comparatively few failures in canning last year; this

year there should be fewer failures.

We must bear in mind that the canning process is still in the experimental stage. This accounts for the slight changes that occur in the canning directions from year to year. Government experts and scientists who are continually working on the problem of canning have pronunced the One Period Cold Pack Method a satisfactory method of canning fruits, vegetables, and meats, and a desirable method for the housewife to adopt. In order to obtain good results it is necessary to follow the directions as given absolutely. Many of the previous failures in canning can be attributed to the fact that the individual did not follow directions strictly, but allowed her personal opinions to vary the method at some critical stage.

The following general directions should be carefully followed in can-

ning any material by the One Period Cold Pack Method:

1. Select jars without defects and wash thoroughly.

Use only fresh ripe fruits and fresh, young, tender vegetables.Can vegetables as soon as possible after gathering.

3. Wash products thoroughly.

4. Grade products according to size and ripeness. This is necessary

to insure uniform cooking and complete sterilization.

5. Scald or blanch products which require it. Cheese cloth bags, wire baskets, colanders, etc., are suitable blanching devices. A cold dip always follows the hot water dip. The water should be boiling when the product goes in, and the time for blanching should be counted after the water resumes boiling. Blanching improves color, reduces bulk and softens the product so that a maximum amount can be packed in the jar.

6. Pack the jar within ½ inch to ¼ inch of the top. Pack as firmly as possible, without crushing, all fruits and vegetables with the exception of corn, lima beans, shell beans, winter squash and pumpkin. These vegetables are starchy and swell during sterilization. Pack them lightly

and leave at least one half inch of space at the top of the jar.

7. Add one teaspoon salt to each quart of vegetable, and fill jar to within $\frac{1}{2}$ inch to $\frac{1}{4}$ inch of the top with boiling water.

8. Add boiling syrup to fruits.

9. Put on rubber and cover. Partially seal jar. If a clamp top jar is used, put bail over the top but leave the lever up. If a screw top jar is used, screw cover down only until jar can be lifted by the cover. Do not screw absolutely tight.

10. Place jars as soon as possible after packing into sterilizer and allow time given on time table for outfit used. If hot water bath is used, start to count the time after the water begins boiling around the jars.

The water should be hot when the jars go in.

11. At the end of the sterilizing period, remove jar from the canner and complete the sealing. If rubber has pushed out, put on a new rubber, adjust top, return to sterilizer and boil for ten to fifteen minutes.

12. Cool jars as rapidly as possible without exposing them to a draft.

Store in a dry, cool, dark closet or cellar ..

The preservation of canned fruits depends upon thorough sterilization and perfect sealing, and not upon the quantity of sugar used. Our aim this year is to preserve the maximum quantity of fruit with the minimum quantity of sugar. It has been our tendency to use too large a proportion of sugar in all of our preserves, thus masking the real flavor of the fruit. The table of syrups given below may serve as a guide in canning. Use 20 per cent. or 30 per cent. syrup for all except the very acid fruits, which may require 50 per cent syrup to make them palatable. All syrups are simply brought to a boil before adding the fruit.

TABLE OF SYRUPS

Per cent. Syrup	Parts of Sugar	Parts of Water
20	1	4
30	1	2
50	• 1	1

Insufficient sterilization accounts for many of our flat soured products and failures in canning. Experiments in canning have shown it necessary to lengthen the period of sterilization over the time given in many publications of last year. Following is the time table for blanching and sterilizing as given in the latest State College and Federal bulletins.

TIME TABLE FOR BLANCHING AND STERILIZING

Products		nching or alding		Water-Bath or Steam-Cooker	10 lbs. Steam Pressure	15 lbs. Steam Pressure
		min. min.		min.	min.	
Vegetables					-	
Asparagus	in	steam	15	120	60	40
Beets			5	90	60	40
Carrots			5	90	60	40
Corn			5-10	180	90	60
Greens	in	steam	15	120	± 60	40
Lima Beans			5-10	180	90	60
Peas			5-10	180	90	- 60
Pumpkin			3	120	60	40
String Beans			5-10	120	60	40
Squash			3	120	60	40
Tomatoes			1-2	22	15	10

Fruits

Apples	1-2	20	10
Berries		16	8
Cherries		16	8
Currants		16	8
Gooseberries	1-2	16	8
Pears	1-2	20	10
Peaches	1-2	16	8
Plums	1-2	16	8
Pineapple		30	12
Quince	1-2	20	10

So much depends upon the condition of the product and the manner in which it is packed into the container, one must follow very closely directions regarding selection, grading, preparation, and pack of products before attempting to apply the time table. If two quart jars are used, add 25 to 30 minutes for the water bath.

SPECIFIC DIRECTIONS

Strawberries

Wash and prepare as for table use. Pack directly into jars, add syrup, and sterilize. Pineapple, cherries, and all berries are handled in the same way.

Peas and Beans

Grade, wash, and blanch in boiling water for five to ten minutes. Cold dip and proceed according to general directions.

Using Less Sugar in Our Preserves

The two requests from the Food Administration asking us to preserve more fruits and to save sugar seem at first thought to be contradictory. We find on the other hand that it is possible to comply with both requests and at the same time to have preserves of a superior quality. The old time proportion for jam making, using sugar and fruit pulp pound for pound, is passing from use, and we find that a jam made of 30 per cent. sugar is superior in flavor to the jam made of equal portions of sugar and fruit pulp.

Strawberry jam

Ripe broken fruit may be used in making the jam, but one half of the quantity of berries used should be slightly under ripe to give the best consistency to the finished product. Crush fruit and measure it. Cook fruit rapidly in porcelain lined vessel, stirring occasionally to prevent catching down. When the greater part of the moisture is evaporated, add the sugar, using one part of sugar to two or three parts of fruit pulp as measured before cooking. Continue to cook after the sugar is added until it will give a jelly test, i. e. a small quantity when cooled in the spoon flakes off from side of the spoon instead of coming off in drops. Pour hot jam into sterilized air-tight jars and seal. Jams and jellies made with this proportion of sugar must be sealed in air-tight jars.

County Conference on Food Preservation

The members of the Advisory Board of the Home Making Department of the Norfolk County Farm Bureau, and the town leaders in food conservation were invited to a conference on food preservation at the Norfolk County Agricultural School on the afternoon of June 7th. This meeting was called for the purpose of discussing and outlining plans for furthering the preservation of foods in Norfolk County during the summer months. In spite of very unfavorable weather conditions, we had an attendance of seventy women, sixteen towns in the county being represented.

A business meeting for the Advisory Board members of the Farm Bureau preceded the general meeting. At this meeting, the Constitution and By-laws for the Home Making Department was presented and accepted. A nominating committee was appointed to bring in a slate at the

annual meeting of the Farm Bureau in January.

The following program was enjoyed by those attending the general meeting:

Suggestions for furthering food conservation during the summer months,
Miss Antoinette Roof, State Home Demonstration Leader (Urban)
Encouraging Boys' and Girls' Club Work in our Communities,

Mr. George L. Farley, State Club Leader.

Community Canning and Drying Kitchens,

Professor W. W. Chenoweth, Massachusetts Agricultural College Preservation Program for 1918,

Miss Stella S. Simonds, Home Demonstration Agent.

An opportunity was given the town representatives before and after the meeting to discuss with Professor Chenoweth local problems regarding community enterprises which they are considering.

Training Schools for Leaders in Preservation

Realizing the great need this year for an increase in our food supply, we felt that we must make a concerted effort in increasing food preservation. In order to make preservation work in Norfolk County more effective and far reaching, two courses for training local leaders in the different methods of preservation were held during the week of May 20th. In order to accommodate leaders from all towns in the county, two centres were established, one in Norwood for the towns in the western part of the county, and one in Quincy for the convenience of the towns in the eastern There was an attendance of eighteen leaders at the end of the county. Quincy school, and fourteen at the Norwood school, eleven towns being The schools were conducted by the Home represented by these leaders. Making Department of the Farm Bureau in cooperation with the Massachusetts Agricultural College, the instructions being given by an instructor from the College and the Home Demonstration Agent. An opportunity was given the women taking the course to do practical work in canning, drying, and in making fruit butters and jams with smaller proportions of sugar. Canning difficulties were discussed, and the desirability of preserving foods by salting, drying, and dry storage was considered. The women who took this two-day course are prepared to act as information bureaus, and to give demonstrations to neighborhood groups in their respective towns during the summer months. already received from several of the leaders telling of work started in

their towns, assure us that the towns provided with the trained local leaders will be benefited by their services in furthering food preservation. The following towns are represented with local leaders: Braintree, Brookline, Canton, Cohasset, Foxboro, Franklin, Norwood, Stoughton, Walpole, Weymouth, Quincy.

Training School for Junior Canning Club Leaders

Many women who have agreed to act as leaders for our boys' and girls' canning clubs this summer, have felt that they were not competent to give instruction in canning by the Cold Pack Method. To overcome this difficulty, we are making arrangements to have two one-day training schools for the leaders, giving them instructions and practice in canning and a better understanding of the organization of junior clubs. These training schools will be held the first week in July, the date and places of meeting to be announced later to the club leaders.

Boys' and Girls' Club Department

Banking Institutions Help Pig Club Members

Banks and trust companies in Norfolk County have this spring advanced nearly \$3000 for the purchase of small pigs for local boy and girl club members who might not otherwise have kept a pig. In Weymouth, the Weymouth Trust Company took notes for the distribution of nearly 125 pigs. The Stoughton Trust Company financed 65 for Stoughton club members. In Canton the local trust company financed a number for both children and adults, thirty children joining the Pig Club. For the children of Wrentham, the Wrentham Trust Company supplied 20, and in the town of Franklin a prominent citizen financed 45 pigs personally. Most of the pigs have been taken by boys and girls who would not otherwise have raised a pig, so the banks have helped a great deal in advancing food production and the club movement.

The following list of material has been sent to members of the various clubs. Due to faulty or incomplete addresses, some of the letters and bulletins have gone astray, and some have been returned to the office. If any club member has not received all of the literature listed for his club,

he can get it by writing to the County Club Leader.

Pig Club

Pig Club Primer for 1918.

Pig Club Record Book.

½ lb. of rape seed with planting instructions.

Five Little Pig Tales (bulletin).

How to Feed and Care for a Young Pig (Letter).

Monthly Feed Sheet.

Farmers' Bulletin No. 765—Breeds of Swine.

Farmers' Bulletin No. 874—Swine Management.

Farmers' Bulletin No. 906—The Self Feeder for Hogs.

Circular No. 102—Movable Hog Houses.

Market Garden Club

Market Garden Record Book.
Farmers' Bulletin No. 937—The Farm Garden in the North.
Circular NR—3—Home Gardens—Vegetables to Grow and How to Grow them.

Potato Club

Government Form 0-3-Boys' and Girls' Potato Clubs, Instructions and Record Book.

State Junior Extension Circular-Steps in Potato Growing.

Corn Club

Government Form R-13—Corn Club Report Blank. State Junior Extension Circular—Hints to Corn Club Members.

New Pig Club Primer

The 1918 Pig Club Primer, written by V. A. Rice, State Pig Club Agent, and printed by the Extension Service of the Massachusetts Agricultural College, has been sent to all pig club members on record June 1st.

The new primer, from an amateur's point of view, is the best little pamphlet on the care of one or two pigs that has ever been put out, and is meeting with great favor among the club members. Incidentally, many requests have come in from adults asking for information about pigs which they can understand, and the Pig Club Primer answers all of their questions.

Girls' Canning Clubs Organized for Summer Work

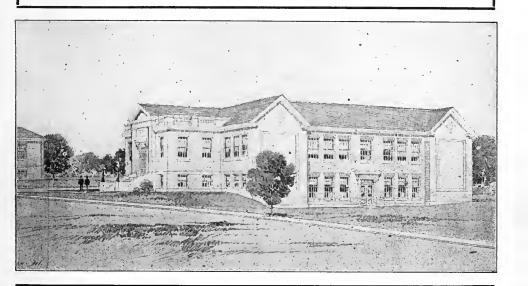
During the early part of June the Home Demonstration Agent has been organizing girls' and boys' canning clubs in the towns throughout the We expect to have 33 clubs working in 20 towns during the summer months, and we expect that not only hundreds but thousands of jars of materials will be canned as a result of their efforts. of ten or fifteen members meets at least once in two weeks with an adult local leader who teaches them at each meeting how to can some fruit or The meeting place of the club varies; in some instances it is the Domestic Science kitchen, kitchen of a church, town hall, Grange hall, or in the leader's kitchen. If the facilities permit, each member brings a jar and product and cans under the direction of the leader at each The added assistance which we are to have in the Home Making Department will make it possible for the Home Demonstration Agent or her assistant to visit each club once a month, and in this way we hope to raise the standard of work done in these clubs.



NORFOLK COUNTY AGRICULTURAL AND HOME MAKING BULLETIN

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SCHOOL STAFF

FREDERIC W. KINGMAN	Director
BENJAMIN R. GRAVES	Poultry Husbandry
HORACE C. FUNK	Animal Husbandry
ANDREW N. SCHWAB	
CHARLES W. KEMP	Weymouth Dept.
MARY E. SHEPARD	Sec'y and Accountant

FARM BUREAU DEPARTMENT

WILLARD A. MUNSON	County Agricultural Agent
STELLA S. SIMONDS	
EUNICE H. HOMER	Asst. Home Demonstration Agent
JOHN T. DIZER	Boys' and Girls' Club Leader

Timely Topics

Beekeepers' Field Meeting

The Eastern Massachusetts Beekeepers' Association will hold its annual field day at the Agricultural School Saturday, August 17, at 11:00 A. M. There will be good speaking, exhibits, and demonstrations. In these days of sugar shortage, there is a growing interest in the production of substitutes for sugar. It will be shown at this meeting that it is profitable and practicable to make honey in Norfolk County. We wish to give this association a rbyal welcome. Why not come and bring your friends? Basket luncheon at noon.

Save Bags For The Potato Crop

Those who will need bags for use in handling their potato crop should begin to save all that can be secured between now and harvesting time. The government has requisitioned a large portion of material that usually goes into the making of burlap bags. This bag shortage is also likely to have its influence on the delivery of fertilizers during the fall and coming spring. In order to be sure of fertilizer delivery for fall use, orders should be placed without delay.

Woman's Farm Unit Fills the Gap

In the early part of May, the New England Branch of the Woman's National Farm and Garden Association, located a farm working unit of women in Westwood. As usual, there were comments pro and con from farmers, as to how these workers could be of use. As the season advanced, and men became less and less available for farm work, these women have been called upon until at the present time the force has been increased to twenty-eight, and yet this number is not able to meet the requests which are made for help.

Farmers with whom we have talked have given the women workers much praise for the manner in which they have taken up whatever work has been assigned to them. Most of the farmers have given them weeding, hoeing, and hand work to do. We have reports that women of another unit have been able to help on dairy farms with the milking and barn

chores.

Those who have been actively in charge of starting these groups of women for farm labor are studying the results of this season's progress with a view to increasing the number of units another season, and to determining if it would be feasible to send women to individual farms for the season.

Grain Crops Give Indications of Large Yield

On July 13, F. F. Blaine, from the Bureau of Plant Industry, Cereal Investigation, United States Department of Agriculture, visited many of the grain fields of Norfolk County. Mr. Blaine was very enthusiastic over the appearance of the fields and their indications of a good crop. He attributed the fine condition of nearly every field to the excellent preparation of the land before planting, good fertilization, and early planting.

In some places slight traces of rust were found, and a small percentage of smut. The smut on oats is controllable by treating the seed with formaldehyde. This can be done at a cost of from one cent to a cent and a half per bushel, and will pay well, even though there is only a three or four per cent. smut damage. Those growing oats should look over their fields for smut, determine the loss, and plan to eliminate this next season by treating the seed. The early planting of grain crops usually allows them to get their largest growth before rust develops, and they are then in better conditions to resist its ravages.

Crops are Looking Well

About half the growing season is over, and although the conditions have been good for planting and caring for crops, the temperature at times has been too cold to get the fastest growth. A year ago the farmers of the country were urged to make every effort to increase production, and the suburban people were asked to produce all the food possible in their back yards or on nearby available land. The farmers have done all they possibly could, using every means at their disposal to get a higher They have planted more land and given the plantings better production. care through the most efficient methods. Many have put into practice methods that have been advocated by investigators of crop management efficiency, which in previous years were looked upon with much doubt. Through the shortage of labor, farmers have dispensed with unnecessary hand labor on extensive crops, such as corn, potatoes, etc. The high cost of seed, fertilizers, and labor has brought to the attention of many growers the great chance of loss from the poor germination of seed, and they have made sure of their seed by testing before planting, instead of using the field as a seed test plot. The shortage of experienced help has had its influence, in that the available experienced labor has received and is receiving better management, being directed so that the maximum amount of profitable work is attained.

The home gardener is doing his share one hundred per cent. better than last year. Gardens have never looked more prosperous; they are showing the results of well prepared and fertilized ground, good cultivation, weeding, thinning, and insect control. Indications are that a good crop will be harvested from the back-yard gardens if they are as well looked after during the remainder of the season. The spirit of both fammers and home gardeners in producing food is backing up the government to full capacity.

Advertise Your Milk

How many milk distributors are taking advantage of the present effort being made by the Food Administration to increase the consumption There is an opportunity to supplement this publicity by local distributors doing a little advertising for themselves, at a very little ex-Short statements regarding the food value of milk could be printed on the backs of bills going to customers each month, thus making use of valuable space which is now going to waste. Something about the milk would attract the attention of nearly every one. Statements regarding the dairy from which the milk came would be of interest, or it would be a good thing to tell the cost of producing the milk and its advance during recent years. There are many things that users of milk are interested in,

and it would all help to increase consumption.

Many people do not realize the full value of milk as a food, and it is up to producers and distributors to supplement the educational agencies in spreading the information which is helping their business. The manufacturers of other foods depend upon advertising to bring their products to the public attention and create a demand; once the consumer begins to respond, the advertising is pushed further in order to keep the present business and continually increase it. The possibilities in advertising milk and its value have but hardly begun to be realized. The opportunity has never been better for every producer and distributor to enter on a campaign that will not only do himself a great deal of good, but will also be of benefit to the customer.

Last Winter Injured Fruits

The fruit trees in Norfolk County, although not so severely injured as in other parts of Massachusetts and in the states to the north, are giving indications of more or less winter killing. In some orchards, only an occasional tree has been entirely killed, in others a number have died, and some show a very weakened condition by the small leaves, slow growth, and unhealthy condition. Trees that are only slightly affected have a possibility of recovering, and in order that they may become healthy in the shortest possible time, it will be necessary to give special attention to every detail in their care. Those trees that have made little progress toward recovery, which are still going backward, have little chance of coming back to normal, and the best plan will be to replace them at the next

Raspberry, blackberry, and strawberry beds have all shown the effects of the past winter, and the crops have been considerably below those of

normal years,

Agricultural Department

Don't Stop Spraying

Although much has appeared from time to time on the subject of potato spraying for blight, it is not unusual to hear growers say that they have not sprayed, that it is not necessary because there are no bugs. More potato crops have been reduced by the ravages of late blight than have ever been destroyed by bugs. Blight may appear at 'any time, and it spreads rapidly, taking only a short time to destroy a field of potato vines. Once the vines are gone, the tubers stop growing, are left unripe in the ground, and very often are subject to decay.

By all means keep up spraying with Bordeaux mixture. It will pay interest on the investment in proportion to the thoroughness and frequency with which it is applied. Spraying to ward off blight is life insurance

to the potato crop.

The Potato Plant-Louse

BY H. T. FERNALD

This insect, which so unexpectedly became abundant last year and caused much loss on potatoes and tomatoes, has appeared again. It is a tiny green louse which sucks the sap from the under side of the leaves and is thus liable to be overlooked until it has become so abundant that the

plants have suffered severely.

The leaves of potatoes and tomatoes should be examined every week now, and if these plant-lice are found in any numbers the plants should be thoroughly sprayed with some form of Nicotine Sulfate, which can be obtained of almost any dealer in agricultural supplies. One brand of this substance was tried last year at the Agricultural Experiment Station for this purpose and gave good results, killing 99 to 100 per cent. of the lice. It was called "Black Leaf 40" and one part was used in 800 parts of water as follows:

"Black Leaf 40,"	½ pint
Hard soap dissolved in boiling water2	pounds
Water50	gallons

In small quantities this would be:

If it is desired to use Bordeaux Mixture with this, leave out the soap and mix as follows:

Bordeaux Mixture50	gallons
"Black Leaf 40,"	½ pint
Mix well before spraying.	

As the plant-lice are nearly all on the under side of the leaves, use an angle nozzle so that the spray will come up from below and reach where the lice are. Also keep in mind that as the lice are sucking insects, only those actually hit by the spray will be killed; therefore spray thoroughly but with the nozzle giving a misty spray.

Last season the work of these insects was mainly over by August 10.

Winter Wheat

For winter wheat the seed bed should be compact beneath with a fine mellow surface. To secure this, the ground should be plowed as soon as possible after the preceding crop has been taken off—about a month or more before seeding time. If potatoes or some other cultivated crop preceded the wheat, disking and harrowing the ground will be sufficient. The ground should be harrowed immediately after plowing, and afterwards at sufficient intervals to keep down the weeds, and to prevent a crust from forming so that all the moisture possible will be conserved.

Seeding. In this locality it is best to sow wheat from August 15 to September 10. From five to six pecks of seed are required per acre. The best way to sow the seed is with a grain drill which should have fertilizer and grass seed attachments. Where a drill is not available, broadcasting and harrowing in the seed to a depth of one to two inches will do.

Varieties. Probably the largest yielding variety for this section is Dawson Golden Chaff. It has not as good milhing qualities as the harder wheats, but is excellent for poultry and pastry flour. In tests made by the Connecticut Agricultural Experiment Station during the seasons of 1911-12 and 1912-13, the six leading varieties in order of yield were: Dawson Golden Chaff, Fultzo-Mediterranean, Dietz, Bearded Winter Fife, Fultz, and Maryland Flint.

If it is desired to seed down to grass with the wheat, a mixture of 11 pounds of timothy and 5 pounds red top per acre can be sown at the same time; and a mixture of 4 pounds medium red and 4 pounds alsike clover per acre broadcasted very early the following spring while there

is still frost in the ground.

Fertilizer. From 300 to 400 pounds of a 3-10 fertilizer is usually used where the ground has been manured a year or two previously. On fertile soil manure must be used with caution, as the wheat will be apt to grow too rank and lodge, but otherwise it can be applied advantageously. If the soil is in need of lime, an excellent time for using it is before sowing wheat.

Fattening Poultry for Market

One of the reasons why we do not get greater returns for live poultry is because of the poor condition in which the birds arrive on the market. There are few purchasers fon poor, sick, emaciated hens. A hen that has spent two weeks on the nest or has brooded a flock of chicks since April is not the bird to ship to market if one expects to get the best re-

turns. Binds that are in a good healthy plump condition are the ones which bring the best prices and are in most demand in the market.

There are four methods used in fattening poultry; (1) cramming; (2)

yard fattening; (3) pen fattening; (4) crate fattening.

The cramming method is used in foreign countries such as Denmark, Norway, and Sweden, but is not used in this country to any great extent. This method, as its name implies, means taking the birds and cramming food down their throats by the use of a funnel or a commercial cramming machine.

Yard fattening means the confining of the birds in a small yard, feeding grain rations which contain high percentages of carbohydrates, such as corn, buckwheat, and rye. This method is used largely by farmers who have little time to spend with the flock. It is a much slower method than either pen or crate fattening.

Pen fattening is the most common method employed by the poultrymen of New England. This method consists of putting the birds in a spare pen in the house and feeding them three times daily a mash composed of ingredients yielding high percentages of carbohydrates. The method of procedure in detail is as follows:

- (1) Select several hens and put them in a well-ventilated, thoroughly cleansed pen, separated from the remainder of the flock, so they will not get mixed with the laying hens.
- (2) Feed these birds three times daily on either of the following rations:
 - a. 6 lb. corn meal
 - 4 lb. middlings
 - 1 lb. beef scraps
 - b. 10 lb. corn meal
 - 2 lb. middlings
 - 2 lb. fine oat hulls
 - 1 lb. beef scrap
 - c. 10 lb. corn meal
 - 10 lb. ground buckwheat or barley meal
 - 10 lb. middlings or oatmeal
 - 3 lb, beef scrap
- (3) If skim or buttermilk is available, the beef scrap should be dropped from the mash.
- (4) The mash should be mixed to the consistency of a thin batter and kept before the birds only from twenty minutes to half an hour at a time.
- (5) The birds should not be given water during the period of confinement. Using this method, it will take about 14 to 18 days to put a pound of flesh on each bird.

Crate fattening is the method used by the commercial poultrymen and commercial dealers all over the country. The birds are placed in slatbottomed coops about four feet square, and fed three times daily on fattening rations, the same as those given above, except that skim or butter milk is always used in mixing the mash. These birds are not given water, and are fed in troughs which are cleaned after each feeding. Three to five pounds of mash and about six to eight pounds of milk is required. A pound of flesh can be put on each bird in ten days to two weeks. Birds fattened by this method are called "milk-fed" and bring two to three cents per pound more in the market. Thus, five pound birds at the end of two weeks will weigh six pounds and bring two cents more per pound.

Molting Hens

Now is the time when some of the layers are beginning to shed their feathers. The time taken for molting varies from two to eight weeks, depending upon the condition of the bird and the ration used. By leaving out five pounds of gluten feed in the Standard War Ration, and substituting five pounds of oil meal, the hen will have more material for growing feathers and the time of molting may be decreased very materially.

Home Making Department

Preserving Fruits and Vegetables by Drying

Every method of food preservation should be adopted this year to prevent any perishable food from going to waste. Canning is the method most commonly used, and perhaps most thoroughly understood, but it should not be used to the exclusion of other methods. Drying has been little used by this generation, but is the most practical method of preserving many of our perishable products. It should not replace canning, but can well supplement it.

Drying may be accomplished by the heat of the sun or by artificial heat. Owing to the fact that we have very few dry, sunny days in succession, we find drying by artificial heat to be more practicable.

Oven Drying. Oven drying may be easily done by placing small quantities of food stuffs on plates in a slow oven, leaving the door open a few inches. In this way left-overs and other bits of food may be dried and saved for winter use. For oven use, a simple tray may be made of galvanized wire screening with the edges bent up for one or two inches on each side. At each corner this tray should have a leg an inch or two in length to hold it up from the bottom and permit a circulation of air around the product.

Drying on top of Stove. The Granger Dryer is one of the most satisfactory commercial dryers. This type of dryer consists of a watertight metal box, 17 by 24 inches, and two to four inches thick, the top and bottom being flat. A hole in the top allows the pouring in of water and the escape of steam. The lower compartment is partially filled with water, set over the gas or oil flame, or on the top of the range ,and the prepared products spread on its flat surface. The steam heats evaporating surface, and the products are evaporated very rapidly with no This same principle may be made use of in a homedanger of burning. made device—a roaster may be used for this purpose. Water is placed in the bottom, the top inverted, and the products to be dried are placed in the top compartment. A similar device can be made by placing a large tin tray over a milk pan, having a small amount of water in the pan. This device will be found most practicable for the housewife as the products which are drying will not require watching.

Following are some general directions for drying by artificial heat:

- 1. To dry successfully, there should be heat and circulation of air.
- 2. The temperature for drying should not exceed 140 degrees.
- 3. Use young, tender vegetables.
- 4. Fruits or vegetables are usually cut in shreds or slices one fourth to one eighth of an inch thick, and the skins removed.
- 5. Cleanse product thoroughly.
- 6. Blanch vegetables five minutes in boiling water.
- 7. Dry until rather brittle—fruit should be leathery.
- 8. Test product to see if thoroughly dry by shutting it up in 'a box with a dry cracker, allowing it to remain over night. If cracker

- takes on moisture, the product should be removed and dried more thoroughly.
- 9. Condition products before storing by placing them in boxes and pouring from one box to another once a day for three or four days to distribute moisture evenly.
- 10. Proper packing and storage is essential to successful drying. Baking powder cans and similar covered tins, paper bags, and paraffin covered paper boxes, are good for storing. All dust and insects should be excluded from the box. The storage place should be cool, dry, and well protected from mice and insects. It is well to use small containers, so that less exposure takes place before using.

SPECIFIC DIRECTIONS FOR DRYING

Corn. Select ears that are young and tender and freshly gathered. Blanch on cob in steam or boiling water for five to ten minutes to set the milk. Drain thoroughly, and with a sharp knife cut from the cob in thin slices. Start drying at temperature of 110, and raise gradually to 140 degrees Fahrenheit. Allow three to four hours for drying.

Shelled Beans and Peas. Select young tender products, shell, blanch five to ten minutes in boiling water, and spread on dryer. Dry thoroughly, allowing three to three and a half hours.

String Beans. Select tender beans, wash, and remove strings. Slit lengthwise (do not snap into pieces one fourth of an inch to one inch long.) Blanch five to ten minutes. Dry thoroughly, allowing two and a half to three hours for drying.

Apples. Pare, core, and slice apples at right angles to the core in slices about an eighth of an inch thick. Drop in slightly salted water for one to two minutes to prevent discoloration, using one teaspoon of salt to one quart of water. Dry from four to six hours, or until leathery and pliable.

Salting as a Method of Preservation

Experiments carried on by the United States Department of Agriculture have shown that greens, cabbage, string beans, and corn can well be preserved by salting. The following directions for salting have been taken from a government bulletin:

Dry Salt. Wash the vegetables, drain off the water, and weigh them. For each four pounds of vegetables, weigh out one pound of salt. For smaller quantities, use the same proportion of salt, one fourth the weight of the vegetables. Spread a layer of the vegetables about one inch deep on the bottom of a clean keg, tub, or crock, and sprinkle heavily with some of the salt. Distribute the salt evenly among the different layers packed, so that the quantity weighed out will be just enough to pack the vegetables. Continue adding layers of vegetables and salt until the container is nearly full, and then cover with a clean cloth, board or plate and a weight. The container should then be set aside in a cool place. If the

salt and pressure of the weight have not extracted sufficient brine to cover the vegetables after twenty-four hours, prepare a strong brine by dissolving one pound of salt in two quarts of water, and pour enough of this over the vegetables to cover up to the wooden cover. There will be a small amount of bubbling at the start, but this will not continue for long. As soon as the bubbling has stopped, the surface of the liquid should be sealed by pouring hot paraffin over it."

Brine. Peas, beans, or corn may be preserved by the use of liquid brine. Wash vegetables and drain off water. Pack in fruit jars up to within one inch of the top. Make a brine, using one fourth cup of salt to one cup of water. Fill jar with brine and seal. No sterilization is re-

quired.

Preparation for the Table. Soak vegetables for several hours in water, changing the water several times. The last time cover with cold water and bring vegetables to boiling point. Pour off water and add more. If vegetables are still salty, repeat this step; otherwise cook until tender and season.

Difficulties Encounted in Canning

1. Many failures in canning may be attributed to the fact that directions are not followed carefully. Use only reliable bulletins, and a time table issued this year.

2. If canned products do not keep, it indicates insufficient steriliza-

tion or a defective seal.

3. Flat sour is a bacterial decomposition caused by insufficient sterilization. A lukewarm temperature during the canning process should be avoided, as this favors the development of bacteria. If old, stale material is used in canning, there is greater danger of this difficulty.

4. Defective seal may be caused by the cover not fitting the jar, nicked or cracked jars, or inferior rubbers. Use only rubbers with sufficient elasticity to allow stretching without breaking. Do not use a rubber ring

the second time.

5. Bulging rubbers are often caused by overfilling the jar. Fill the jar only to within one half inch of the top, with material and liquid.

6. When the taste of the rubber is imparted to the canned product, it

may be due to a poor quality rubber ring, or to the jar being too full.

7. Liquid is sometimes lost from the inside of the jar: (1) because too low a rack is used, thereby preventing complete circulation of water underneath the jar; (2) because the water in the sterilizer does not stand at least one inch over the top of the jar; (3) because the bail on the jar may be too loose.

8. Shrinkage of greens in the jar may be due (1) to improper blanching (Blanch from 15 to 20 minutes in steam); (2) to careless packing.

- 9. It is not necessary to sterilize jars before filling them in the Cold Pack method of canning.
 - 10. Boiling water or syrup should be used in filling the jars.
- 11. The period for blanching and sterilizing should not be timed until the water has returned to the boiling point.
- 12. Bubbles of air or an air space in the jar when canning by the Cold Pack method, will do no harm. The air is sterilized at the same time that the jar and product are sterilized, and sterilized air is harmless.

13. If a jar leaks after it is removed from the sterilizer and the clamp tightened, it is oftentimes due to a defective rubber. In this case loosen the clamp, remove the cover and rubber, place a new rubber on jar, re-place cover, partially tighten, and return to sterilizer. Boil five minutes longer if it is a fruit, and fifteen minutes if it is a vegetable.

14. Store material in a cool, dry, dark place. Warmth will not cause the material to spoil. Light fades some products and often causes

discoloration of canned products.

Continuing Our Wheatless Meals

Wheat is still our most serious problem in the food situation. Every message from the Food Administration urges more and more strongly the great necessity of the strictest economy in our use of wheat. To assist the housewife in substituting other cereals for wheat, the Food Administration has issued the following 12 wheatless receipts:

Rice and Oat Biscuit (Rice flour 50 per cent, Ground Oats 50 per cent.) Combination Substitute Muffins (Barley 50 per cent., Oats 50 per cent.)

Oatmeal Betty

Cornflour Biscuits

Ground Rolled Oat Muffins

Barley Muffins

Corn Flour Sponge Cake

Rice Flour Sponge Cake Baked Hominy and Cheese

Potato Pudding

A complete set of these receipts may be had by writing to the Home Demonstration Agent.

OATMEAL BETTY

2 cups cooked oatmeal or 2 cups cooked oatmeal 4 apples cut up small $\frac{1}{2}$ cup molasses $\frac{1}{2}$ cup raisins $\frac{1}{2}$ cup raisins

½ cup raisins ¼ cup sugar

¼ teaspoon cinnamon

Mix and bake for one-half hour. Serve hot or cold. Any dried or fresh fruits, dates or ground peanuts may be used instead of apples.

COMBINATION SUBSTITUTE MUFFINS

100 per cent Wheat Substitute Barley 50 per cent. Oats 50 per cent

Barley 50 per cent. Oats 50 per cent

1 cup milk
1 tables poon fat
4 teaspoons baking powder

2 tablespoons syrup
2 eggs
1½ cups barley flour
2 eggs
3⁄4 cups ground rolled oats

Add to the cup of milk, the melted fat, syrup and the slightly beaten egg. Sift the salt, baking powder and flour together. Mix in the ground oats. Combine the two mixtures stirring lightly without beating. Bake in a moderately hot oven (425 degrees F. or 215 degrees C.) for 20 or 35 minutes depending upon the size of the muffins.

This recipe makes 24 small muffins (3 of which make 2 oz. serving) or

8 very large muffins.

RICE AND OAT BISCUIT

100 per cent. Wheat Substitute

Rice Flour 50 per cent Ground Oats 50 per cent

1 cup ground rolled oats 6 teaspoons baking powder

1 cup rice flour 3 tablespoons fat

1 teaspoon salt 1 cup liquid

Sift the dry materials together. Work in fat well. Combine liquid and dry materials, handling lightly. Shape as a biscuit and bake in a hot oven.

Grind your rolled oats in a meat grinder.

Use Fruit, Vegetables and Dairy Products

Every meal in rural communities might well include fresh fruits and vegetables. The use of home-grown garden and orchard products will liberate the more concentrated and staple foods for people living in industrial centers and for the Allies and soldiers.

It is not patriotic at this time to use canned goods when fresh products are available. Immense stocks of commercial canned goods must be reserved for the Army, Navy and the Allies. Every home can help build up this surplus by eating fresh foods and canning all they need for themselves.

Milk, cream and butter are now abundant and represent on many farms "perishables" not marketed. These products, with cheese, may well be used to make up for the shortage of beef and supply the necessary protein and fat to balance a diet of fresh vegetables.

Boys' and Girls' Club Department

Moving Pictures of Pig Club Work

Moving pictures of pig club work in Massachusetts are the latest addition to the educational side of the club work. Flintstone Rival's Duchess 1st, a pure bred Berkshire sow from the Flintstone Farm, Dalton, Massachusetts, has taken up her residence in Weymouth, the property of a Weymouth club member, and from time to time has the various phases of a good pig's life registered on the film for the benefit of future pig club members. The film, when completed, will endeavor to show the various steps in club work from start to finish—bringing the pig home, weighing it, feeding, watering, washing; planting rape pasture; building a movable pen; putting the pig on pasture; pig club meeting; the pig at a fair; a judging contest, and all of the other parts which make the club work so popular with boys and girls. Unlike the ordinary moving pictures, the films are non-inflammable, and are made to fit a machine which can be used wherever there are electric lights without any danger of explosions or fire.

The production is under the direction of Mr. V. A. Rice, State Pig Club Leader, and will undoubtedly be used to good advantage in next spring's campaign for pig club members.

Assistant State Club Leader Visits Norfolk County

Mr. William Howe, recently appointed Assistant State Club Leader, spent several days last month with the County Club Leader in a general tour of the county. Time was spent in Bellingham, Medway, Walpole, Cohasset, Stoughton, and Weymouth, mostly in personal visitations to club members' projects. On this trip the drain of manufacturing enterprises on boy labor was especially noticeable—many of the boys being away all day and, thanks to the daylight saving, carrying on their garden work after supper.

Club Meetings

Twi-lite club meetings are becoming quite popular, especially in the factory towns.

Corn Borer Prevalent This Year

The common American corn borer was found in nearly every patch of corn visited last month. Several reports of the European borer turned out to be its American neighbor. The widespread agitation for the control of the European pest has resulted in a wholesale campaign against borers of all kinds—with undoubtedly beneficial results.

How They Do It

"Leo isn't taking care of the garden now. He is working in Boston and has turned his book and records over to me, and I am going to finish up the club work. Our oldest brother was drafted, and Leo is taking his place in my uncle's store in Boston, so I have all the work to do outside, as well as help my mother inside. The weeds grow pretty fast but I keep right after them, and now the garden looks just as good as if Leo were tending it; don't you think so?"

(The "Leo" spoken of was a club member and a prize winner at the Eastern States Exposition last year, and had laid out an excellent market garden for this year. On going to work he turned the project over to his

younger brother, who made the above remarks when visited.)

"My sister and I picked 83 bushels of peas from those vines and sent them into Boston where we got from \$2.50 to \$3.00 a bushel for them. As soon as the vines are plowed under, we will put in a crop of late turnips. By that time we will have to spray the potatoes again, so you see we always have enough to do. Father had the land plowed and we helped him plant a big garden because he expected to work at home on the farm all summer, but now he is working away all the time and we girls have all of it to take care of—including the horse and a pig. We are thinning out the beets now, and are canning all the little ones and the greens."

(These were two high school girls who, when their father went away to work, took over the entire charge of an acre and a half garden and are

keeping it in good shape.)

These two quotations give a good index to general conditions throughout the section. Mills, factories, ship yards, and machine shops, are claiming many of the best boys of high school age, and they are turning their projects over to younger brothers or sisters. Many men who have formerly stayed on the farms are also answering the call of high wages, and are turning their work to the women and young people of the family.

Because of this there is a greater need than ever before for encouragement and personal help among the home garden workers. Most garden supervisors have been quick to realize this, and have done a great deal of good in keeping many gardens going in good shape under such

adverse labor conditions.

Canning Clubs Active in Eighteen Towns

During the past month great interest has been manifested in the boys' and girls' canning clubs, and forty-two clubs have been formed in the following towns: Franklin, Foxboro, Plainville, Sharon, Stoughton, Weymouth, Holbrook, Randolph, Needham, Bellingham, Millis, Medfield, Norfolk, Dedham, Canton, Walpole, Cohasset, and Norwood.

Every club is now organized with a president, secretary, and local leader. A canning demonstration has been given to each club by an instructor from the Farm Bureau or a trained local leader. Great credit is due these volunteer leaders who are giving much time and thought to the club work. They are often busy housewives who are willing to sacrifice their scanty leisure in the interests of the boys and girls.

Club meetings will be held fortnightly as a rule, and they are planning for a canning lesson as well as a business meeting and recreation period at each meeting. Members will do the rest of the canning to meet the club requirements at home. It is planned for each club to be visited monthly by a representative of the Farm Bureau, to stimulate the interest and raise the standards of the club work. The following program will give an idea of what we are aiming to accomplish at these visits:

July Meeting

Practical Canning with the Club Members
Discussion: Primers and Report Sheets
Judging of Canned Products
Labels for Exhibit Jars
How to win the Club Banner

Recreation: Games

August Meeting

Demonstration on Drying Talk on Salting Vegetables

Talk on Experiences in the State Club by a club champion

Discussion: Difficulties in Canning

Exhibit Plans Recreation: Judging Contest

September Meeting

Exhibits

October Meeting

Demonstration by club team in canning

Discussion: Writing of stories

Records and completing club requirements

Recreation: Social Hour

It is hoped that some canning demonstration teams may be developed in many of the towns. The boys and girls, as well as the leaders, are showing a fine spirit of enthusiasm and willingness to do their part to make this season's club work a success.

The value of the canning clubs to the county can readily be seen. Using a minimum membership of 500, and the minimum club requirement of 24 quarts per member, we see a total of 12,000 quarts of products preserved during the season. Since the average actually canned in the three months by each member is usually in excess of the required 24 quarts, we begin to realize what the boys and girls are doing to help make our county self-supporting.

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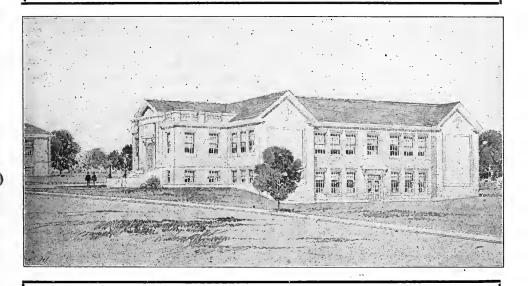
NORFOLK COUNTY AGRICULTURAL AND HOME MAKING BULLETIN

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SCHOOL STAFF

FREDERIC W. KINGMAN	Director
BENJAMIN R. GRAVES	Poultry Husbandry
,,	Animal Husbandry
ANDREW N. SCHWAB	
	Weymouth Dept.
MARY E. SHEPARD	Sec'y and Accountant
TARK DYDHAY DEDARM	

FARM BUREAU DEPARTMENT

WILLARD A. MUNSON	County Agricultural Agent
STELLA S. SIMONDS	Home Demonstration Agent
EUNICE H. HOMER	Asst. Home Demonstration Agent
JOHN T. DIZER	Boys' and Girls' Club Leader

Timely Topics

Agricultural School Opening Third Year

The Norfolk County Agricultural School will open its third fall term on Monday, September 30. It is expected that the enrollment will include most of the students who were members of the school when the spring term New student applications have been received from Boston, Dedham, Norwood, Medfield, North Attleborough, Foxboro, and Hyde Park.

The question of membership was recently discussed in the Norfolk Pomona Grange, and was held to be of such vital concern that a vote was passed authorizing the appointment in each town in the county of a committee to secure students for the coming year. This committee has been appointed and is to hold a meeting at the Agricultural School. Saturday, August 31, at two P. M.

We wish to make announcement at this time of the school's earnest desire to admit girls as well as boys to the agricultural courses. Trustees are planning, too, to establish home making courses this fall if a sufficient number of young women present themselves for admission. Enrollment week for the Home Making Courses will be September 16 to 21 at the School. Consult Miss Simonds or Miss Homer. The original announcement of these courses was made in the July, 1917, School Bulletin. It is repeated here:

I. English.

History.

General Science.

Household Arithmetic.

Elementary Cooking.

Elementary Study of Foods.

Elementary Household Sanitation.

Elementary Laundry.

Elementary Household Management.

Elementary Sewing.

Elementary Textiles.

Applied Art.

Elementary Household Decoration.

Elementary Costume Design.

Physical Education.

Elementary Physiology.

Physical Training.

English.

History and Civics.

Home Gardening.

Cookery.

Advanced Study of Foods.

Advanced Household Sanitation.

Advanced Laundry.

Advanced Household Management and Study of Elementary Budget.

Housewifery.

Cooking-Invalid Cooking.

Butter and Cheese Making.

Care and Feeding of Children.

Sewing.
Elementary Millinery.
Advanced Textiles.
Advanced Sewing.
Physical Education.
Physiology and Hygiene.
Home Nursing.
Physical Training.
Household Chemistry.

Resignations

Mr. Charles W. Kemp and Mr. Horace C. Funk, members of our teaching staff since the opening of the Agricultural School in 1916, have

tendered their resignations to take effect August 31.

Mr. Kemp has been in charge of the Agricultural Department in the Weymouth High School, a branch of the County School, and has also acted as chairman of the Food Production Committee of the town of Weymouth. Mr. Kemp is leaving our service for a position as supervisor of agriculture in a private school in Lakeville, Connecticut.

Mr. Funk's specialties have been animal husbandry and farm crops. He has also taught elementary science, history, and civics. Mr. Funk

resigns to enter the military service.

The work of these two men has been highly commendable, and it is with keen regret that we sever our official relations. It will be difficult to fill their places.

Annual Conference of Agricultural Instructors

The annual midsummer meeting of vocational agricultural directors and instructors was held from July 30 to August 2, with headquarters at the Massachusetts Agricultural College at Amherst. There was a full attendance. The meetings were held under the direction of Mr. Rufus W.

Stimson, Agricultural Agent of the State Board of Education.

The object of the conference was twofold: First, improvement in teaching; second, knowledge of agricultural conditions in the state. The mornings were devoted to lectures and discussions. Among the speakers were Deputy Commissioner Robert O. Small and Mr. F. E. Heald, Agent for Teacher-Training. Mr. Heald's three addresses were very helpful, particularly so to the men just entering the service. The new men seemed to be in the majority, and it is probably true that as the war goes on more men will leave the teaching of agriculture for military or naval service. Under such circumstances, an expert in charge of teacher training is indispensable. Addresses were made by State Forester F. W. Rane on a Forestry Policy for Massachusetts, and Professor W. R. Hart on Agricultural Education.

A number not on the program which will be long remembered, was the address of Dr. Hamilton Holt, Editor of the "Independent." Dr. Holt had just returned from the battlefront and from conferences with crowned heads and statesmen of the Entente nations. Well grounded optimism as to the outcome of the war now prevails among our co-belligerents. Success for our arms is assured, but there is no reason to expect a speedy end-

ing of the war.

Many observation trips were made to home projects of students and to the points of interest with which western Massachusetts abounds. The tobacco and onion sections of the Connecticut Valley, the views from Mt. Tom, where we were guests at dinner of the Trustees of the Smith's Agricultural School, the Smith School itself at Northampton, the College Farm, the Mohawk Trail, the observatory near the Hoosac Tunnel, all made contributions to our information and pleasure that well repaid a most strenuous week of effort at professional improvement.

Those of us who live in Norfolk County are wondering whether we shall be able to do as well when our turn comes to display the farming

opportunities and attractions of eastern Massachusetts.

Bee Society Field Meeting at Agricultural School

The annual field meeting of the Eastern Massachusetts Society of Bee-Keepers was held at the Agricultural School on Saturday, August 17, with about one hundred present. The speakers were as follows: Mr. J. E. Crane, Middlebury, Vermont, "The Flower and the Bee"; Mr. Arthur C. Miller, Providence, R. I., "The Wintering Problem in New England"; Mr. Allan Latham, Norwichtown, Connecticut, "Pasturage;" Dr. Burton N. Gates, Massachusetts Agricultural College, "The Bee-Keeping Situation Today and the Future of the Industry in Massachusetts." It is hoped that a complete report of the meeting may be included in the next issue of our bulletin.

Garden Supervisors Meet

On Monday afternoon, August 19, the garden supervisors of Norfolk County met at the County Agricultural School to exchange ideas on fall Mr. H. D. Phelps of the Garden Department of the Massachusetts Agricultural College was present, and presented the reasons for having fall exhibits and the organization of the fair programs. it gives the gardener an opportunity to show what he has accomplished, and gives the citizens of the community a chance to view the garden products of those who have taken active interest in growing their own It also gives the gardener an opportunity to exchange and discuss ideas with other gardeners of his town and gain much information by so In many cases this information has been used in the succeeding season with beneficial results. He also set forth the value of trade exhibits for those dealers in the community who supply garden accessories. Mr. Phelps then discussed in detail the premium list and recommended that the larger prizes be offered for staple crops, as they should be promoted in preference to fancy vegetables during these war times. the discussion of the fall exhibits, the subject of winter storage of vegetables was taken up, and many ideas were expressed on the conservation of the products which are the result of the many home gardens. Ten supervisors were present at this meeting.

Poultry Culling Demonstrations Give Satisfaction

During the week of August 12 to 17 the Farm Bureau arranged with interested poultrymen of Norfolk County to hold poultry culling demonstrations at centrally located poultry yards in their communities. It was a little difficult to locate these demonstrations, and in order to do it with any degree of satisfaction a letter was mailed to many poultrymen of the county asking whether they would be interested in having such demonstrations in their communities, and if they would cooperate with the Farm Bureau in advertising it among their neighbors. There were enough answers to these letters to warrant arranging for twelve

demonstrations, and an itinerary was arranged so that Professor L. F. Payne of the Massachusetts Agricultural College could conveniently give these demonstrations during the five days he could allow for Norfolk County. These meetings were held at the farms of the following men: R. T. Clark, West Medway; C. H. Siggins, West Medway; James Simpson, Wrentham; Mrs. Fred Sachs, Norfolk; F. H. G. Morse, Stoughton; Herbert Mitchell, Medfield; Walcott Farm, Canton; E. J. Bowmar, Canton; G. H. Rogers, Sharon; J. M. Dennie, Needham; W. S. Keene, Braintree; A. H. Shaw, Wellesley.

The attendance at the meetings was fully up to the expectations, running from six to thirty eight, with an average attendance of sixteen. Many of those present were very enthusiastic in expressing their appreciation of the value of the many points which Professor Payne brought out in his discussion, and in his culling work in the poultry houses. Some of the comments of the poultrymen heard at the demonstrations were: "One of the most valuable meetings I have attended for a long time;" "No poultryman could have afforded to miss this demonstration"; "I knew about most of the facts presented before, I got two new ones"; "Those demonstrators are certainly doing valuable work for the poultry keeper"; "I can go home and sell fifteen per cent, of my hens and feel pretty sure they are slackers"; "This demonstration will save me a lot of money on feed, I won't feed the non-layers any longer"; "That demonstrator knew his business and he did not give us any hot air"; "I got my money's worth at this demonstration, it cost me ten cents to get here"; "I knew all about it but enjoyed the meeting."

The various points presented by Mr. Payne are given below, but we feel that it is necessary for a person to see the culling done in order to get the most out of the facts presented.

A METHOD OF JUDGING FOWLS FOR EGG PRODUCTION

As Formulated at the Judging School Held at Cornell University, Ithaca, N. Y., July 1-6, 1918, and Approved by the American Association of Instructors and Investigators in Poultry Husbandry.

In order to lay well, a bird must have a sound body. As a first consideration, a bird must be vigorous and healthy if it is to be able to lay well. Vigor and health are shown by a bright, clear eye, a well set body, a comparatively active disposition and a good circulation.

Further, the bird must be free from physical defects, such as crooked beak, excessively long toe nails, eyelids that overhang so that the bird cannot see well, scaly leg, or anything else that would keep the bird from seeing or getting an abundance of food.

Loss of Fat Due to Laying

Color or pigmentation changes. (These should be observed by day-light.)

A laying fowl uses up the surplus fat in the body, especially it removes the fat from the skin. In yellow-skinned breeds this loss of fat can readily be seen by the loss of yellow color. The different parts of the body tend to become white, according to the amount of fat stored in the body and the amount of circulation of blood through that part. The changes occur in the following order:

The vent changes very quickly with egg production so that a white or pink vent on a yellow-skinned bird generally means that the bird is laying, while a yellow vent means a bird is not laying. It should be recognized that all yellow color changes are dependent on the feed, coarseness of skin and size of bird. A heavy bird fed on an abundance of green feed or other material that will color the fat deep yellow will not bleach out nearly as quickly as a smaller or paler colored bird.

The eyering, that is, the inner edges of the eyelids, bleach out a trifle slower than the vent. The earlobes on Leghorns and Anconas bleach out a little slower than the eyering, so that a bleached earlobe means a little longer or greater production than a bleached vent or eyelid.

The color goes out of the beak beginning at the base and gradually disappears until it finally leaves the front part of the upper beak. The lower beak bleaches faster than the upper, but may be used where the upper is obscured by horn or black. On the average colored, yellow-skinned bird, a bleached beak means heavy production for at least the past four to six weeks.

The shanks are the slowest to bleach out and hence indicate a much longer period of production than the other parts. The yellow goes out from the scales on the front of the shanks first and finally from the scales on the rear. The scales on the heel of the shank are the last to bleach out and may generally be used as an index as to the natural depth of yellow color of the bird. A bleached-out shank usually indicates fairly heavy production for at least fifteen to twenty weeks.

The yellow color comes back into the vent, eyering, earlobes, beak and shanks in the same order that it went out, only the color returns much more quickly than it goes out. A vacation or rest period can sometimes be determined by the outer end of the beak being bleached and the base

being yellow.

Body Changes Due to Laying

A laying hen has a large, moist vent showing a dilated condition and looseness as compared with the hard, puckered vent of a non-laying hen.

The whole abdomen is dilated, as well as the vent, so that the pelvic arches are widespread and the keel is forced down away from the pelvic arches so as to give large capacity. The more eggs a bird is going to lay the following week, the greater will be the size of the abdomen. The actual size of the abdomen is, of course, influenced by the size of eggs laid and by the size of the bird.

Heavy production is shown by the quality of the skin and the thickness and stiffness of the pelvic arches. Fat goes out from the skin and body with production so that the heavy producers have a soft velvety skin that is not underlaid by layers of hard fat. The abdomen, in particular, is soft and pliable. The sternal processes are very prominent and are generally bent outward. The thicker and blunter the pelvic arches and the greater the amount of hard fat in the abdomen, the less the production, or the longer the time since production.

One of the finer indications, but yet one of the most valuable, in picking the higher layer is the fineness of the head and the closeness and dryness of the feathering. The head of a high layer is fine. The wattles and earlobes fit close to the beak and are not loose and flabby. The face is clean-cut. The eye is full, round and prominent, especially when seen from the front. The high layer is trimmer, that is, the feathers lie closer to the body, and after heavy production, the oil does not keep the plumage relatively as sleek and glossy, but the plumage becomes worn and threadbare.

Changes in Secondary Sexual Characters

The comb, wattles and earlobes enlarge or contract depending on the ovary. If the comb, wattles and earlobes are large, full and smooth, or hard and waxy, the bird is laying heavily. If the comb is limp, the bird is only laying slightly, but is not laying at all when the comb is dried down, especially at molting time. If the comb is warm, it is an indicaton that the bird is coming back into production.

When a hen stops laying in the summer, she usually starts molting. The later a hen lays in the summer or the longer the period over which she lays, the greater will be her production, so that the high producer is the later layer and hence the late molter. The length of time that a hen has been molting or has stopped laying can be determined by the molting of the primary feathers. It takes about six weeks to completely renew the primary feathers next to the axial feathers and an additional two weeks for each subsequent primary to be renewed.

Temperament and Activity

A good layer is more active and nervous and yet more easily handled than a poor layer. A high layer shows more friendliness and yet elusiveness than a poor bird. A low producer is shy and stays on the edge of the flock and will squawk when caught.

While the characters discussed have dealt specifically with the current year's production, it should be borne in mind that a high producer one year is, generally speaking, a high producer in all other years.

Dairymen---Answer the Cost of Milk Production Questionnaires

Secretary A. W. Gilbert of the New England Regional Milk Commission has recently mailed to milk producers questionnaires regarding the cost of milk production. If you have received one of these forms, it would help the board in its work of securing a just price for your milk if you will cooperate and answer the questions, mailing the completed reply not later than September 12 to the Secretary of the Federal Milk Commission, 167 State House, Boston, Massachusetts.

To the County Agricultural Agents

I wish to call the attention of the farmers in this County to a new outlet for some of their produce and one which would enable many of them to establish a regular and permanent business.

Mr. Walter F. Plummer, Bureau of Markets, 148 State St., Boston, Mass., is an expert in marketing by parcel post and express who has recently been placed here in New England with his headquarters in Roston

He has already made a number of transactions between organizations in cities and towns and the farmers to market considerable quantities of produce. At the present time he is looking for eggs, butter, blueberries and sweet corn. He has one customer who desires to buy fifty dozen ears of A No. 1 sweet corn daily as long as it lasts. Another wishes to contract for twenty-five dozen eggs every Wednesday and Saturday. Another wishes to obtain six or ten cases weekly and others are in the market for apples and other farm products which are easily shipped.

Anyone who has these products or any others that can be easily shipped in this way should get in touch with Mr. Plummer at once, as at the present time the demand far exceeds the supply that he has been able to get hold of.

Here is a chance to market your products at a minimum cost and receive full market price without having to pay any commission for the selling.

R. W. MERRICK,

Emergency District Demonstration Agent.

Marketing by parcel post is not entirely new but it has never received

the attention that it should, as possibilities are almost unlimited.

If you have a large quantity of goods to be marketed and for which you cannot find an immediate or regular market, your County Agent can put you in touch with my office as I will be very glad to help you on any problems to the best of my ability.

R. W. MERRICK, Emergency District Demonstration Agent.

Gonscientious Objectors May Be Secured for Farm Labor

In order to obtain the conscientious objectors who are being sent out from Camp Devens, it is necessary to make application to Captain E. J. Hall, Intelligence Officer, Auxiliary Units, Camp Devens, in the following form. The applications will then be acted upon and the men sent if available.

(Place)	 	•	•				•		•	 		•					
(Date)	 													1	9:	18	3

I,, hereby make application for the furlough of a soldier under the authority of the letter of the War Department, A. G. O. 383.2, Disposition (misc. Div.) June 1, 1918, and in accordance with the conditions therein contained.

I agree to pay the soldier, who may be furloughed to work on my farm the standard wage of this locality for farm help of his proficiency in the work, to board and lodge him, to report at least monthly upon the industry, ability, conduct, etc.

Location of Farm:
Name of owner or tenant:
Kind of farm:
Number of persons normally engaged:
Acreage of farm:
Acreage of farm under cultivation:
Wages paid in this vicinity:

County Market Bureau Organized

Frequent requests have come in for information regarding the purchasing of fruits and vegetables in quantity for preserving work. These inquiries have led to the establishment of a county market information bureau. The names of the producers of all fruits and vegetables in quantities in and around Norfolk County have been assembled and filed, one file being placed in the Norfolk County Agricultural School, Walpole, Massachusetts (Telephone Walpole 268), and the other file at the Food Centre, Norwood, Massachusetts (Telephone Norwood 470). This will enable the housewife who wishes to procure any products for preserving to get in touch with either office and learn where she may procure the material for this work.

The file has been arranged in a most complete manner. It will be possible for one to learn (1) of the kinds of products available in each town; (2) of the various towns where each product may be purchased; (3) of the kinds of products grown by each producer listed.

The County Market Bureau should be of value to the residents of Nor-

folk County. In order to make this Bureau must effective, it will be necessary for all residents of this county to be made familiar with its existence. Will you not tell your friends about the county market bureau, and in this way mutually benefit the producer and consumer by bringing the two parties together?

Is Your Community Getting Farm Bureau Service?

Recently a complaint came to the Farm Bureau from one of our Norfolk County towns saying that we were not doing enough of a certain kind of work in that community. We are always pleased to receive complaints and criticisms, as they oftentimes give us an idea of our shortcomings and help us to correct a mistake or a faulty policy. This is especially true if the criticism is made directly to us, without going through an intermediate agency.

The Farm Bureau was established in Norfolk County for the service of its citizens, and further than that for community service. vice to a community, we are able to reach many more people than could possibly be done if we tried to reach every individual citizen personally. It would be impossible to reach every one of the 200,000 people of the county, but by doing our work with groups of people who will take it to many others, it is much more far-reaching. Although the number of agents which the Farm Bureau employs is small, we have managed to meet, so far as we know, every request that has come, and if for any reason we have been unable to come personally it has been our custom to arrange to have some one take the call who is well posted on the special work to Oftentimes, we feel that we can serve the communities to a greater degree of satisfaction by arranging to have a specialist handle the work, rather than for us to try to do it. This gives those interested the latest and most authoritative facts that can be gathered on a subject, and it comes first hand.

The Farm Bureau work of Norfolk County has not been evenly distributed. We find on going over our records that some communities have received several times as much service as others, and in one or two cases very little has been given. The only way that we have of knowing what is wanted and in what the residents of a town are most interested, is through the requests that come to us. We are always pleased to have our records examined, to discuss our work with anyone who so desires, and to plan any work which will advance the various agricultural interests.

With the Garden Supervisors

During the past month we have visited with the garden supervisors many private and community gardens. Much better results have been attained in the gardens this season than last. The supervisors have been very helpful to the residents of their districts in laying out their available land so as to get the most out of it, applying fertilizers, controlling insects and diseases and caring for the crops. Arrangements are now being made for the fall exhibits, and the supervisors will be able to help a great deal in making them successful. They are also ready to give information regarding the proper methods of storage of garden produce for winter use.

Agricultural Department

Selection and Care of Seed Corn

The shortage of good seed corn in many parts of the Northern States last spring emphasizes the importance of being prepared next year. Preparation should begin now, for the only proper way to select seed corn is from the standing stalks as soon as the corn matures and before the first hard freeze. Select plenty of seed—enough for your own needs, for replanting if necessary, enough for the following year, as next year's crop may not be fit for seed, and enough to supply your less thrifty neighbors who may wait until spring to take their chances of getting good seed from the crib. Well-chosen, home-grown seed of varieties of proved worth in the community, properly dried immediately after it has been gathered and carefully preserved until planting time, produces the best yields.

GATHERING THE SEED

As soon as the crop ripens, go through the field with a bag conveniently slung over the shoulder, and husk the ears that are ripe. This will take a little longer than selecting the seed at husking time, but it will insure an earlier strain. Field selection makes it possible to consider also the character of the stalk and the conditions under which it grew, but these are only secondary matters.

CARE OF THE SEED CORN

Immediately after the seed corn is gathered, the husked ears should be put in a dry place where there is free circulation of air, and placed in such a manner that the ears do not touch each other. This is the only safe procedure. Good seed is repeatedly ruined because it is thought to be already dry enough when gathered. The vitality of seed is often reduced by leaving it in a sack or in a pile for even a day after gathering. During warm weather with some moisture in the cobs and kernels, the ears heat or mildew in a remarkably short time.

The best treatment immediately after gathering is to string the ears. Ordinarily the best place to hang strings of ears is in an open shed or loft. Wire racks are more convenient and in the end cheaper than binder twine. Such racks may be made from electrically welded lawn fencing. The cutting of the fencing into seed-corn racks is done without any waste.

Only during unusually damp weather at seed-gathering time will fire be necessary to dry the seed. If heat is employed in a poorly ventilated room it will do the seed ears more injury than good. If used, the fire should be slow, long continued, and below the seed ears, with good ventilation above them.

STORING

After hanging in the shed or lying on the racks for two months, the seed ears should be as dry as a bone and contain less than ten per cent. of moisture. They can remain where they dried or be stored in mouse-proof barrels, boxes, or crates during the winter, but in either case they must not be exposed to a damp atmosphere, for they will absorb moisture and be injured.

Seed Potatoes for 1919

The numerous diseases which have been prevalent in the potato fields this year make the potato grower wonder what he is to do in order to protect himself and be reasonably assured that next year's crop will not be affected as this one has in many cases. Professor Earl Jones of the Massachusetts Agricultural College has visited many Norfolk County potato fields with the agent of the Farm Bureau, and writes him as follows:

Potato fields planted with Massachusetts grown seed seem to have more weak plants and a more uneven stand than usual this year. The plants vary considerably in height, vigor and often there is a poor stand. Weaker plants are likely to show a rolling of the leaves and brown areas on

the leaves, while others are healthy.

It has long been known that for most parts of the state, Northern grown seed is ordinarily better than home grown seed. This year we hear frequently that Northern grown seed potatoes are better than our own and fields demonstrating this are numerous. Possibly the hot weather of last summer reduced the vitality of home grown potatoes more than usual and some of the poor results may be due to the chilling of the seed during the severe winter.

Because of the above conditions we believe it worth while to make the

following recommendations regarding seed potatoes for next year.

(1) Plant Northern grown seed potatoes, unless hill selected seed grown in the more elevated regions of Massachusetts can be found.

(2) Seed from a field having an uneven stand or containing weak and diseased plants should not be used.

(3) Seed from fields that look well one year may not produce satisfactory crops the next year.

Therefore, it is safer to use Northern grown seed potatoes.

Pack the Silage Well

It will not be long before corn will be going through the ensilage cutters into the silos. This is the cows' winter green feed, and in order to get the best results and the most from the corn, it should be allowed to pass the milk stage and begin to dent, or glaze in the case of flint corn, before being cut. Even the risk of having the corn slightly frosted may be taken in order to get the ears as mature as possible. The finer corn fodder is cut, the more easily and more compactly it can be packed, and

the result will be a much better silage.

Too much stress can not be laid upon the necessity of thoroughly packing the fodder in the silo so as to exclude the air as much as possible. It is upon this one thing that the keeping of silage largely depends. A device consisting of a jointed pipe or some variation of it attached to the top of the blower pipe is at present in use for distributing the cut corn fodder in the silo. By the use of this distributor it is possible for one man to scatter the cut corn evenly and at the same time to tramp it. Without the use of this device it is necessary to have at least one extra man in the silo to fork the material over, so that it is evenly packed. Besides the saving of one man's labor, the distributor does away with the nuisance of having the loose material flying around.

Oftentimes the corn fodder is so dry when it is cut that it is necessary to add water to make up for the deficiency in moisture and provide for the proper packing of the silo. This water is most easily added to the blower when the corn is being cut, and it is also more thoroughly mixed with the

cut material in this way.

If the silage is not to be used for some time, it should be covered with hay or heavy green stalks. This helps to pack it and helps to keep the top layer of the silage from spoiling to any great depth.

Fall Grains

By Earl Jones, Massachusetts Agricultural College

Wheat or rye? Whether to grow wheat or rye depends largely upon soil conditions. Rye is a hardier crop and does not require such early seeding, good soil conditions, on careful preparation of the soil. It will ordinarily stand our winters better than wheat and is therefore the safest crop for this state. However, where conditions are made right winter wheat can be successfully grown and this year we see many fields of winter wheat

The conditions favorable for successful winter wheat culture may be

summed up as follows:

(1) A productive soil.

(2) A compact seed-bed with a mellow surface.

(3) Early seeding, preferably around September 1st.

(4) Use of fertilizers rich in phosphoric acid. Rye will do better under the following conditions:

(1) Poor, sandy or acid soil. (It is a safer crop for old mowings and pastures than wheat.)

(2) Where seeding must be done in late September or early

October.

3) Where fertilizers cannot be used.

(4) Where the seed-bed must be hastily prepared.

Seed-bed and seeding. All grains do better with a compact seed-bed. The land should, where possible, be plowed some time previous to the sowing of the grain crop. With land that has grown a cultivated crop, discing will do as well as plowing. All grains do better when sown with a grain-drill. Broad-casting can be successfully done but a little more seed is required. Five to seven pecks of seed should be used for both wheat and rye.

Varieties. There are no varieties of rye in general as but few definite varieties have been developed. Rosen rye has been developed in Michigan in the past few years and gives promise of being a better yielder than the common rye and the seed is carried by a few seed-men. It is rather difficult to say what the best varieties of winter wheat are, because it is not grown extensively in New England. Dawson's Golden Chaff, Red Wave and the Klondyke have been grown in New England and have yielded

well in tests.

Fertilizers. Fertilizers for grain should be high in phosphoric acid. For wheat a mixture containing 3 to 4 per cent. nitrogen and 8 to 10 per cent. phosphoric acid is good. Depending upon soil conditions 250 to 500 pounds per acre should be used. This should be applied broad-cast when seeding. Manure applied to the previous crops shows good results on the wheat. The use of fertilizer with too much nitrogen is not advisable for rye as it may cause lodging. On poor soils rye will respond to an application of 150 to 250 pounds of acid phosphate or fertilizer containing a small amount of nitrogen.

Preservation of Poultry Manure

At a recent conference of the instructors of the agricultural schools of Massachusetts, held at Amherst, the scarcity and almost prohibitive price of nitrate of soda was discussed. It is a well-known fact that fresh hen manure contains about 69 per cent. moisture, 1.3 per cent. nitrogen, .4 per cent. potash, and 1 per cent, phosphoric acid. It is also a well-known fact that the manure loses a large percentage of nitrogen if allowed to stand for any length of time without the addition of some preservative.

The method of preservation depends upon the use to which the manure is to be put. A mixture of 100 pounds of fresh manure, 65 pounds of dry loam, and 20 pounds of acid phosphate, makes an excellent top dressing for grass lands or lawns. The dry loam is thrown on dropping boards after each cleaning, and in this manner becomes mixed with the manure when the boards are cleaned. The mixture may then be weighed and the acid phosphate stirred in. A ton of this mixture will supply plant food at about the rate of 20 pounds of nitrogen, 43 pounds of phosphoric acid, and 314 pounds of potash.

A mixture of 100 pounds of droppings, 70 pounds of dry loam, and 50 pounds of acid phosphate makes a good mixture to apply to land to be used for vegetables or field crops. A ton of the above mixture will furnish about 18 pounds of nitrogen, 90 pounds of phosphoric acid, and 3 pounds of potash. This last makes an excellent mixture for the backyard gardener having a small flock of hens and a small garden, for this mixture is much stronger than most fertilizers in the market today. If it is not possible to get the loam, dry sawdust at the rate of 30 pounds to

100 pounds of droppings may be used.

A small flock of 10 hens will produce 400 pounds of droppings a year. Adding 280 pounds of dry loam or 120 pounds of sawdust and 200 pounds of acid phosphate, 880 pounds of fertilizer would be produced. This makes a splendid application for a quarter acre plot intended for the raising of vegetables.

This is a period of conservation, so let's conserve the nitrogen found

in poultry manure.

Roosts for Chickens

Nearly all the chicks should be roosting at this time. The house should receive an occasional visit during some of these hot nights, and those chicks that are found on the floor should be placed on the roosts.

There are three things to consider in placing the roosts: (1) Place them just far enough apart so that one line of birds will not touch the other; (2) Have the ends of the roosts free so that the birds will not crowd at the end of the roost; (3) Place the roosts on the same level so that the birds will not all crowd on the highest roost. It is also a good plan to paint both new and old roosts with a mixture of equal parts of either carbolineum, croosote, or carbolic acid, and kerosene.

Culling the Flock

In speaking of culling, it might be well to mention that on July 23 the school flock of 110 hens laid only 29 eggs. On the following day 19 hens were taken out, and the production still remained 29 eggs. On August 8, the same flock, now numbering 91 hens, laid 32 eggs; on August 10, 19 hens were sold to the butcher, and the production still remained 32 eggs from only 72 hens. This shows that many of our flocks can be culled down about 20 per cent., and still have the production remain as before.

Milk Leaflets

The U.S. Food Administration issued, some months ago, a four-leaf pamphlet setting forth the importance and food value of milk. About two million copies of this leaflet have been distributed by the U.S. Department of Agriculture. This leaflet should be in the hands of every consumer, but the appropriations to these Departments are limited and they have not the funds to print the required number to reach every home.

The U. S. Department of Agriculture is in a position to furnish these pamphlets in quantities to dealers, associations, or commercial organizations for the sum of \$1.13 per thousand delivered to any address in the United States. Make checks payable to the American Security and Trust Company, Treasurer, (who is handling the funds under this joint arrangement) and mail checks together with order for leaflets to the U. S. Department of Agriculture, Attention Alexander H. Kerr, Special Assistant, Washington, D. C.

We can fully recommend this leaflet and would urge that milk distributors especially avail themselves of this liberal offer. Every school should order enough of these leaflets to give one to every student capable of understanding it. It could profitably serve as a lesson in all classes

from the fifth grade up.

HOARD'S DAIRYMAN.

Home Making Department

What Shall We Do About Fruit?

All causes have contributed this year to make the fruit situation a eritical one. The unusually severe winter last year prevented a normal yield of our native fruits. Consequently, strawberries, raspberries, blackberries, blueberries, and peaches have been scarce and expensive. direct outcome of this situation has been that many housewives have felt that fruits have been delegated to the class of luxuries and in many cases less fruit has been preserved than normally. Many people are adopting this policy without knowing the situation as it will doubtless be this com-The banana, our staple winter fruit, will be a stranger on our tables, owing to the fact that the fruit carrying steamers are to be used for war purposes. We are told that the government has taken over the greater part of the supply of prunes, which deprives us of one of our most popular and economical winter fruits. If we have not been sufficiently far-sighted this summer to preserve fruits in some form, what will we include in our winter diets to take the place of this valuable food? The mineral salts, vegetable acids, and growth promoting substances found in fruits are most essential in our diets, and to remove them from our menus would be a step toward undermining our health.

It is unfortunate that the sugar shortage should reach its height during the preserving season. However, we have found that fruit preservation is not dependent upon large quantities of sugar. Jams, marmalades, and butters made of twenty and twenty-five per cent. sugar are superior in

flavor to our old time rich conserves.

Fruit butters are the cheapest kind of fruit product, since they can be made from imperfect fruits and require little sugar. They may be used as a relish or as a spread for bread, and make excellent butter savers. Apples, grapes, peaches, and plums all make delicious butter. An effort should be made to save many of our early windfall apples in this way.

The following receipts will save the maximum quantity of fruit with a minimum amount of sugar Lay in a supply of butters for winter to re-

place the jellies which we are unable to make this year.

APPLE BUTTER

Wash 4 lbs. apples, remove the decay and worm holes. quarters, place in cooking vessel, add cider to cover, and cook at the boiling temperature until fruit falls to pieces. Rub through a seive to remove pealings, cores, and seeds. Add 1 cup of boiled cider to pulp and return Cook with constant stirring until it begins to thicken. to the fire. a spread is desired, add sugar at the rate of 8 ounces to 4 pounds of apples If a relish is desired, omit the sugar. Continue cooking until the desired consistency is obtained, add 1 teaspoon cinnamon and one half teaspoon clove, or sufficient spices to taste. Fill into sterilized containers and seal at once. A bushel of fair grade apples and the eider from a bushel of cider apples will make 3 to 4 gallons of finished product. This is an excellent substitute for the rich jellies and preserves, and should be used in every home. To make boiled cider: Boil 5 cups of cider until evaporated down to 1 cup.

GRAPE, PEACH, AND PLUM BUTTERS

Cook the fruits in a small amount of water until the fruits are in pieces. Rub through a seive to remove seeds and skins. Return the

pulp to the cooking vessel and cook with constant stirring until it begins to thicken. Then add sugar as follows: Grapes, 1 part of sugar to 4 parts of pulp. Peaches, 1½ lb. sugar to each peck of fruit. Plums, same as peaches, unless fruit is acid, in which case sugar will have to be increased.

JAMS (RASPBERRIES, BLACKBERRIES, AND ALL SMALL FRUITS)

Ripe broken fruit may be used in making jam, but one half of the quantity of berries used should be slightly under ripe to give the best consistency to the finished product. Crush fruit and measure it. Cook fruit rapidly in porcelain lined vessel, stirring occasionally to prevent catching down. When the greater part of the moisture is evaporated, add the sugar, using one part of sugar to three parts of fruit pulp as measured before cooking. Continue to cook after the sugar is added until it will give a jelly test, i. e. a small quantity when cooled in the spoon flakes off from side of the spoon instead of coming off in drops. Pour hot jam into sterilized air-tight jars and seal. Jams and jellies and marmalades made with this proportion of sugar must be sealed in air-tight jars.

CARROT MARMALADE

1½ lb. carrots, 1 orange, 1 large lemon, sugar. Select tender carrots and put through food chopper. Cook until tender with a small amount of water. Wash orange and lemon thoroughly, put through food chopper, and cook in a double boiler until soft. Combine the two mixtures and measure. Add 1 part of sugar to 2 parts of pulp. Boil until thick and jellylike. Only a few minutes is required. Pour while hot into sterilized air-tight jars and seal.

The Wheat Situation

Although the present outlook for a bumper crop of wheat in this country is very favorable, it does not in the least permit us to relax our efforts toward conserving the white wheat flour. We realize that the present situation of shortage would not have occurred had we built up any reserve store both here and abroad. This reserve is a necessity for the future and must be obtained by economy of use of white flour on our parts for some time. We must also consider the transportation conditions which must be encountered before the present harvest is available for New England.

Owing to the improved outlook, The United States Food Administrator, Mr. Hoover, has released from their pledge the hotels, restaurants, and householders who pledged themselves to use no wheat until the next harvest. But victory products, if obtained from the bakery, and the fifty-fifty purchases of white flour and substitutes still hold good. We are requested to use no white flour but have been asked for the present to sub-

stitute entire wheat, graham, or rye.

Wheat is also the source of entire wheat and graham, as well as of white flour. More of the entire grain is used in the milling process, however, thereby saving somewhat on the amount of wheat to be milled. We are at present overstocked in Massachusetts with these two products, owing to the fact that they have been classed as wheat products, and the purchase of equal quantities of substitutes has been required. The same surplus of rye is also prevalent. Therefore, we are urged until the present stock in the hands of the retailers is exhausted to purchase these two in place of white flour, not, however, in place of the substitutes. These are still to be widely employed. No substitutes are required with the purchase of graham, entire wheat, and rye. This situation will last only while the present supply is on hand. It will not continue to the extent of milling any more of these flours.

To summarize the present wheat outlook, it is still necessary to conserve as strictly as we can on the use of white flour and to use substitutes as far as possible. For a time graham, entire wheat, and rye are urged in place of white flour, and may be purchased without substitutes as long as the supply lasts. It will be clearly seen that the situation may change at any time owing to the demand on the supply available.

The following are receipts for the use of graham and rye.

c. cup

t. teaspoon

T. tablespoor

SOUR MILK GRAHAM BREAD

Mix one cup of bread flour, 11/2 cups Graham flour, 1 teaspoon of salt, $\frac{1}{4}$ cup of sugar, and $\frac{1}{4}$ cup molasses. Add $\frac{1}{2}$ cups of thick sour milk, mix with two teaspoons of soda and beat well. Let stand 20 minutes in a tin, and bake one hour in a slow oven. This receipt will make one and one half dozen muffins.

QUICK NUT LOAF

1½ c. rye flour

1 t. salt

3/4 c. graham flour 3/4 t. soda

1-3 c. brown sugar or molasses 1½ c. sour milk

11/2 t. baking powder

½ c. or more English walnuts cut in pieces

Mix and sift flour, soda, baking powder, and salt. Add remaining ingredients, putting in the nuts when mixture is smooth. slow oven about an hour; cover pan for the first half-hour.

STEAMED GRAHAM PUDDING

1/4 c. shortening

1½ c. graham flour ½ t. soda

1/2 c. molasses

1 t. salt

½ c. milk 1 egg

1 c. raisins, seeded and cut in pieces

Melt shortening, add molasses, milk, egg well beaten, dry ingredients, mixed and sifted, and raisins; turn into buttered mould, cover, and steam two and one-half hours. Dates or figs cut in small pieces may be used in place of raisins.

CORN AND RYE MUFFINS

34 c. corn flour 1/4 c. white flour 1 c. rye flour

1. c. milk 1 t. salt 1 egg

1/4 c. sugar 4 t. baking powder 2 T. shortening

Mix and sift dry indgredients. Add egg, milk, and melted shortening. Bake in shallow greased pan or muffin tins about 20 minutes.

The Value of a Fall Exhibit

It has been the custom in many towns for several years to hold a fall exhibit or harvest festival where the results of summer efforts along gardening and preservation lines are shown. These exhibits are not only interesting and entertaining, but have a distinctly educational At these fairs, a high standard of work is usually exhibited, and through competition the standard of work is raised in the community. The possibilities of preserving foods in various ways are shown, and many people unfamiliar with food preservation are encouraged to try it, having seen the success obtained by a neighbor. In many towns there are boys' and girls' canning clubs, and it seems as if the fall fair is a splendid opportunity for the juniors to show the results of their work.

Prizes, although small, help decidedly in encouraging more and better work, and it would seem as if this were a valuable way for the local food production committee to spend \$25 to \$30, as it would react directly upon the work of the coming year.

There is an opportunity this year to make these fairs of still greater value by encouraging food exhibits and displays of receipts relative to food

conservation.

Is your town or society planning for a fall exhibit? Are you as an individual planning to contribute your best work to this exhibit? The Home Demonstration Agent will be glad to advise and assist in planning the local exhibit, and is interested to visit all fairs that are held in Norfolk County.

A Food Preservation Census for 1918

The Food Administration is desirous of obtaining an accurate estimate of the amount of material preserved in Massachusetts this year. In order to get this information, the local food conservation chairman in each town is asked to take a census of the preservation work done in each home. Towns that have previously been organized for Liberty Loan and Red Cross drives can easily be handled, a captain for each district being appointed to get the information in her district.

The food preservation survey will probably be taken in each town between the middle of September and the middle of October. The success of this undertaking can be assured only through the cooperation of all of the people. Will you do your part toward making the Norfolk County re-

port one hundred per cent. complete?

Boys' and Girls' Club Department

Canning Club Demonstration Teams

In response to the interest we have tried to arouse in regard to canning demonstration teams, six or seven towns have begun to organize such teams and train them to give public demonstrations. The Assistant Home Demonstration Agent has planned for at least two meetings with each group before exhibit time. It is hoped that competition between several teams may develop in towns where a large fall fair is held. A few simple prizes offered to the children will encourage their efforts. We believe that the actual demonstration of the cold pack method of canning given by children who have successfully used this method in their own homes during the summer, will arouse the interest of the townspeople in the concrete results obtained by this means of preservation, and particularly in the value of the girls' and boys' club work.

The privilege is also given to this county to send a team to the New England Fair held at Worcester, September 3, to compete with other counties from this state in demonstrating canning and in judging canned products. We are planning to send two such teams at that time. Prizes are also offered ranging from \$1 to \$10 for the best exhibits of canned goods put up by the children. It is hoped that some good work will go

from our towns to compete in these exhibits.

Brockton Fair Prizes

The Brockton Fair Association has offered the following prizes for Pig Club Members in Plymouth, Bristol, Barnstable, and Norfolk Counties at the Brockton Fair:

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	00	TOBER 1, 2, 3.	and 4, 191	8	
CLASS	A-Sows inte	ended to be sav	ed for breed	ing.	
Prizes:	1st	2nd	3rd		Hon. Mention
	\$6.00	\$4.00	\$2.00		\$1.00
CLASS	B-Fat Hogs				·
Prizes:	1st	2nd	3rd		Hon. Mention
	\$6.00	\$4.00	\$2.00		\$1.00
CLASS C—Sow and Litter of Pigs					
Prizes:	1st	2nd	3rd	4th	
	\$8.00	\$6.00	\$4.00	\$2.00	
STORIF	S: For the	e best practical	story of 20	0 to 500	words on pig

STORIES: For the best practical story of 200 to 500 words on pig raising. Send stories to your County Boys' and Girls' Club Leader before Sept. 25.

Prizes	given by Pres	sident Cross.		
Prizes:	Ist	2nd	3rd	4th
	\$10.00	\$7.00	\$5.00	\$3.00

JUBGING CONTEST—Contestants will place one class (4 animals) of breeding sows and one class of fat hogs.

 Prizes
 1st
 2nd
 3rd
 4th
 5th

 \$10.00
 \$8.00
 \$6.00
 \$4.00
 \$2.00

 GAIN OF WEIGHT—For the greatest gain in 4 months—must be a

GAIN OF WEIGHT—For the greatest gain in 4 months—must be a spring pig and weighed at the Fair.

Prizes given by President Cross.

- 11100	01,011 00 2100			
Prizes:	Ist	2nd	3rd	4th
	\$10.00	\$7.00	\$5.00	\$3.00

MODEL EQUIPMENT—You will be allowed a space 2 ft. by 3 ft. in which to exhibit model equipment, so make it conform to this size. Should consist of house, trough, rubbing post, self feeder, pasture crops or anything you think essential in caring for a pig.

Prizes given by President Cross.

Prizes	1st	2nd	3rd .	4th	5th
	\$20.00	\$12.00	\$8.00	\$6.00	\$4.00

Federal and State Club Leaders Visit County

Mr. George Farrell, from the States Relation Service, Washington Office, and Mr. George L. Farley, State Club Leader for Massachusetts spent a day early in the month in the county, looking at the boys' and girls' work. Visits covering market garden, canning, and pig club work were made in Walpole, Canton, Stoughton, Weymouth and Cohasset.

The County Farm Bureau

A county farm bureau is an institution for the development of a county program of work in agriculture and home economics, and for cooperating with State and Government agencies in the development of profitable farm management and efficient and wholesome home and community life, for man, woman, and child. It is organized agricultural democracy, by means of which farmers and their families express themselves concerning all matters relating to the advancement of agricultural, home, and community life.

NORFOLK COUNTY AGRICULTURAL AND HOME MAKING BULLETIN

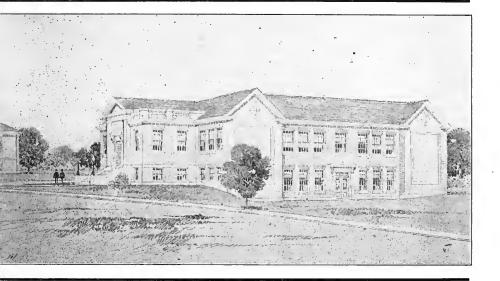
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SCHOOL STAFF

FREDERIC W. KINGMAN	Director
BENJAMIN R. GRAVES	Poultry Husbandry
MALCOLM D. CAMPBELL	Animal Husbandry
ANDREW N. SCHWAB	Market Gardening
	Weymouth Dept.
MARY E. SHEPARD	Sec'y and Accountant

FARM BUREAU DEPARTMENT

WILLARD A. MUNSON	County Agricultural Agent
STELLA S. SIMONDS	Home Demonstration Agent
EUNICE H. HOMER	Asst. Home Demonstration Agent
JOHN T. DIZER	Boys' and Girls' Club Leader

Timely Topics

AGRICULTURAL SCHOOL OPENING SEPTEMBER 30

The third fall term of the Norfolk County Agricultural School is to open on Monday, September 30. Applications have been received from different parts of the county and from the Boston district, and it is hoped that a good enrollment will be secured.

The following notice has come to us from the Massachusetts Agricultural College:

DO NOT WASTE YOUR TIME

Study will make you a better farmer or homekeeper. Use your spare time during the winter months for home study and improve your position.

Home Study Courses are Offered by THE EXTENSION SERVICE

of the

MASSACHUSETTS AGRICULTURAL COLLEGE

in the following subjects:

Soils, Manures and Fertilizers, Field Crops, Farm Dairying, Fruit Growing, Vegetable Gardening, Floriculture, Animal Feeding. Farm Accounts, Entomology, Beekeeping, Forestry, Shade Tree Management, Poultry Husbandry, and Home Economics.

Management, Poultry Husbandry, and Home Economics.
Write for full particulars to: The Supervisor of Study Courses.
Massachusetts Agricultural College, Amherst, Massachusetts.

WRITE TODAY

Massachusetts Guernsey Breeders' Sale

To the Farmers of Norfolk County,

The MASSACHUSETTS GUERNSEY BREEDERS' ASSOCIATION invites each and every one of you to attend its first annual consignment sale of Guernsey cattle at the New England Fair Grounds, Worcester, October 24th at 10:30 A. M. This sale will be composed of seventy head of thoroughbred Guernseys from leading Massachusetts breeding establishments and will offer the first opportunity of its kind here for the purchase of high quality breeding stock at buyers' prices. We also invite you to meet with us and attend our banquet at the Bancroft, Worcester, on the evening before the sale. It will be a "Dutch Treat" at a reasonable price.

Please bear it in mind that you are not invited for the purpose of buying cattle unless you wish to do so, but for the purpose of meeting our members (among whom are many of the finest breeders in this country) as well as to inspect our cattle and enjoy our

sale.

RICHARD G. HARWOOD, Secretary.

Fairs and Shows

The Farm Bureau agents have been called upon to judge the exhibits at many of the fairs held in the communities of Norfolk County. The improvement noted in these exhibits from year to year bears evidence to the progress which is being made in the various activities which come into competition at the fall fairs. The interest in the exhibits is showing a healthy growth, which gives those in charge reason to believe that a good thing started should be continued if its full value is to be attained. is increasing evidence of the necessity for exhibiting garden products. canned products, cookery, sewing, live stock, etc. It is of vital i portance to ag icultural interests that the lead fairs should ern inue from year to They give the people an opportunity to see the best products that are raised in their communities, and to learn of the methods, the pains, the time, and expense required to bring from the soil and the home these specimens of perfection. The fair is a means of advertising what is being done in the surrounding territory; it encourages others to make an effort to p oduce better vegetables, live stock, and home products. The exhibitor has an opportunity to talk with the judge who is glad to point out the strong and weak points of the specimens selected. He has a chance to compare his products with those of his neighbor and learn much in this way.

Winning the prize is a goal worth striving for, but it should not be the sole aim. Oftentimes, the winner neglects to find out the reasons for his winning, whereas the loser makes a study of the strong and weak points in his exhibit and is in a better position to win the succeeding years. The person who knows how to put up a good exhibit, whether it wins or loses, commands the respect of all who view it.

From year to year the local fairs have grown better and better, until now some of the exhibitors are becoming very efficient in preparing and arranging exhibits. Let the good work continue and its support grow

Poultry Culling Demonstration Draws Large Attendance

On August 26, one hund ed seventy five interested people and poultrymen attended the poultry culling demonstration given by Professor Graham and Mr. Banter, at the farm of Mr. Arthur H. Shaw, Wellesley. Mr. Ralph Morgan of the New England Poultry Producers' Exchange was present to explain some of the work which this Exchange hopes to do, and the program it has made to date. Mr. Morgan said that there are now enough members to open a store in Boston, which they hope to do very soon. This is to be for the benefit of the poultrymen of New England, and they hope it will create a demand for more New England poultry products. No profit is to be made by the Exchange. If there are surplus funds after all bills have been paid and the members have received their returns for products sent in it will be returned to the members in the form of dividends.

Profes or Graham made a few remarks in regard to the extent of the poultry culling work which has been done in Massachusetts. He also gave some timely points in regard to the efficient management of poultry in order to get a continuous supply of eggs during the entire year, and have a good percentage of that supply coming during the fall and early winter months

when prices are high. He emphasized his point by saying that the fall production at the College is forty per cent. of the production during the year, thereby yielding the largest returns when the prices are high.

During the meeting, Mr. Morgan took a census of the number of birds kept the first of last January. Forty nine poultry keepers reported an aggregate number of 14,075 birds, an average of 328 for each one reporting. These poultrymen reported that they would probably keep in their winter flocks this year 16078. This gives an increase of fourteen and one fifth per cent. over last winter's flocks. A more optimistic sentiment was shown at this meeting in regard to the future of the poultry industry in Eastern Massachusetts, than has been shown at similar meetings for some time past.

After the culling demonstration, Mr. Shaw gave those present an opportunity to inspect in detail his recently built poultry houses. In one of these houses he has cold storage rooms, fattening rooms, and killing rooms, under the main poultry room. In the fields on range are 2000 head of young poultry running in large corn fields and over large areas of grass land. These are mostly White Wyandottes coming from stock purchased from some of the best breeders in the United States. Mr. Shaw has already some young cockerels which are being fitted for the shows.

As people left the farm we were pleased to hear them express their gratitude for the opportunity to attend this meeting and go over the poultry plant, equipment, and yards of the Sabrina Farm. Poultrymen were present from Norwood, Bellingham, Needham, Medway, Franklin. Wellesley, Norfolk, Medfield, Stoughton, and Canton. Undoubtedly, other towns were also represented.

Apple Crop Being Harvested

The crop of apples in Norfolk County, although small, is of very good quality. Some of the fruit was injured by hail, but diseases and insects have been better controlled this season than for several years past. Some of the young orchards are yielding fruit for the first time. Those that have been well cared for are giving good results and bid fair to make the owners a profitable return in the near future. These stand out in marked contrast to those orchards which have been planted in the past few years and allowed to shift for themselves. No fruit is being harvested from these neglected trees and they show few signs of ever amounting to much.

Even in growing an apple tree, the results depend upon close attention to every detail from the time it is planted, and more and more attention is needed as it begins to bear.

Agricultural Department

Exporting Dairy Cattle

Farmers who have spent time and money in breeding dairy cattle are considering the possibilities of exporting some of their stock after the war to the devastated countries of Europe. For years we have been importers of dairy cattle, and many of our breeders have depended upon the European countries for stock with which to lay the foundations of the herds which they have developed to such a high degree of perfection. But this condition will be reversed at the close of the war, when America will be called upon to restock the herds of Europe.

The loss of cattle through German confiscation in Belgium and Northern France has been tremendous. In the countries of Switzerland, Norway, Sweden, Denmark, and Holland, cattle have been slaughtered at a rapid rate on account of the shortage of feed and difficulty of obtaining it. The United States is about the only source from which stock can be obtained to rebuild the dairy industry in these countries. France, Italy, Holland, and Belgium have sent commissions to the United States to ascertain the available supply of cattle which can be used in these countries when the time comes to reestablish their depleted herds. Already, the Department of Agriculture at Rio de Janiero, Brazil, has purchased a herd of registered Jerseys from the Brookwood Farms, at Barryville, New York.

Wheat Can Be Grown Here

Last spring many of our Norfolk County farmers planted wheat to see if a profitable result could be obtained in this locality. Very satisfactory results are now being reported, ranging from twenty two to forty bushels per acre. This success should lead to a larger planting of wheat next year. In order to get spring wheat into the ground as early as possible, it would be well to plow the ground this fall.

Rye has also yielded exceptionally well this year. This crop we know can be grown profitably on a large portion of our soil, and its acreage should be considerably increased. There is still some time left for sow-

ing rye this fall.

Hogs Being Raised on Pasture

Those interested in raising hogs to make the largest returns would gain considerable knowledge by visiting the Millis Stock Farm in Millis, Mass. The owner, Mr. H. F. Allen of Arlington, is raising hogs by the pasture method, using rape and field corn, supplemented by a grain mixture. The pasture furnishes about half the food consumed.

The rape is sown in rows. When sufficient growth is attained, the hogs are turned into the field and allowed to feed upon the green stuff as they wish, and are fed grain once a day. When the gree feed is good and plentiful, each large hog is allowed two pounds of grain per day. Rye is used on this farm for early spring feeding, and the corn which is now nearing maturity will furnish late feed along with the rape.

Mr. Allen has thirty purebred Duroc Jersey and Chester White brood

sows on pasture

Fall Management of Poultry

Last year we had a frost and a cold snap in September. This year the same conditions again prevailed, yet many of us were caught napping and many cases of roup are again devastating our ficeks. These conditions exist not only in our own country, but in many other sections of New England. The results have already been felt: a decrease in egg production, the loss of a few choice pullets, and the injured appearance of many birds we had intended to exhibit at the fairs.

Those among us whose flocks have already been "hit" must seek a remedy, and others will profit by our experience. Those of us who have "patted ourselves on the back" must heed the old saying that "an ounce of p evention is worth a pound of cure."

Roup is simply an advanced stage of a cold. The relation is similar to that which grippe bears to a slight cold among humans. There is a cure for roup, just as there is a cure for grippe, but the cure for roup takes tire and patience, and even then the bird is hardly fit for breeding purposes. Practical poultrymen rarely bother with roup, but simply kill and bury or burn the infected bird.

The fall cold is much more frequently found in the pullet flock than in the flock of mature fowls. Its first symptom is moisture at the nostrils. The poultryman should be on the watch for those birds whose nostrils and beaks are plastered with bits of straw, dirt or feathers. These birds should be examined at once and will probably show that their nostrils are clogged. At first there may be no odor to the breath, but the cold is indicated and if allowed to run its course the odor of roup will follow. The next symptom is the formation of beads of moisture in the corner of the eye, and finally the eye swells, white patches form on the lining membrane of the mouth and throat, and a genuine case of roup is developed.

The treatment of fall colds begins with the location and removal of the cause. It may be any of the following: low vitality of the birds, crowding, drafts, lack of ventilation. The causes of low vitality are an inherited weakness, faulty breeding methods, wrong methods in rearing, poor housing conditions, and the presence of lice and mites on the birds or in the houses. The first three causes cannot be corrected in this generation, but the last two causes, and especially the last one, can be remedied. There is no reason why lice and mites should be found in sufficient numbers to hurt the birds. The application of blue ointment and vaseline will kill the lice on the bird, while a thorough spraying with crude carbolic acid (one part) and kerosene (three parts) will kill mites and lice in the house. These methods have been described in a previous bulletin.

A frequent cause of fall colds is the crowding of pullets upon the roosts at night. Even though plenty of room is provided, the birds have a tendency to huddle too closely together on cold nights. The remedies for

this are to leave a space at the end of the roost, or to pay the bi ds an occasional nocturnal visit and scatter them upon the roosts until the habit

of huddling is broken up.

Another frequent cause of fall colds is a draft that strikes the bids upon the roost. The wall about the roosting quarters may not be tight, the summer ventilators may be too low, or the roosts too high, or there may be too much open front. It seems better in this climate to adhere to the old rule of one square foot of open front to every eight square feet of floor space.

Still another cause of colds is lack of ventilation, some people still clinging to the old idea of allowing little or no fresh air to enter the house at night. In order to maintain their normal temperature of 105 to 107 degrees, birds must have plenty of oxygen. If we go into the house at night and notice the slighest odor or dampness, then the problem of getting rid

of roup is a problem of ventilation.

A point that is often overlooked by the poultryman is the fact that these colds are passed along, not only in the drinking water, but also in the mash hoppers, and in the very air breathed. Unaffected birds may easily contract the disease from those who have already succumbed. first step in treatment, therefore, is to remove from the flock all birds who Treat them for lice and mites, cut off all show any evidences of cold. supplies of water except those provided in drinking vessels. The water in these should contain some good disinfectant. Heretofore permanganate of potash has been used quite effectually, but the pice of this disinfectant has risen to \$6 per pound in many sections which makes it prohibitive. Many poultrymen use kerosene with varying results. The drinking vessels are filled to about three fourths of an inch of the top with water, and then sufficient kerosene is poured on to make a light film completely covering the surface of the water to a depth of one eighth of an inch. The birds are compelled to drink this water until conditions improve. There are many One of the bost is the other treatments which are more or less effective. This compound, as its Latin use of a patent disinfectant called fersul. name implies, is a compound of iron and sulphur together with other ingredients. It has been tried out in the Delaware Egg Laying Contest with great success, and is used not only as a disinfectant but is used as an eye wash for birds infected with ocular roup.

In addition to the above treatment, the entire flock should receive a good dose of epsom salts and sulphur once a day for at least three days. This should be given in a wet mash, because birds that have become accustomed to dry mash will devour wet mash ravenously and in their haste will not detect the presence of the distasteful mixture in the mash. The salts and sulphur clean up the system, prevent new cases, and aid recovery. Following this a nourishing diet of not too rich food, and an abundance of green food should be given until the birds recover.

Another thing we should not neglect this fall is the care of the poultry With the amount of land in this county, we should be able to employ to advantage the so-called double-yarding system, by means of which yards are arranged both in front and in the rear of the poultry house. this arrangement the birds can have access to a bountiful supply of green Even the single yard should be limed, plowed, and feed up to November. sown to rye. A good stand of rye can be secured if the yard is seeded down Here at the school we are planning any time before the first of November. The rear yard, which is not being used to use the double yarding system. The front yard, which must be at the present time, will be sown to rye. used until November, will be plowed in the spring, three fourths of the yard nearest the house will be sown to oats, and the remaining fourth will be planted to corn for summer shade. This plan has proved very successful in other localities, and a fair crop of corn has been secured if the birds are not allowed to range in the corn until it has grown to a height of two feet. The object, of course, in plowing and liming is to bury any disease germs which may be present in the soil and to sweeten the soil.

We must soon move the birds into their winter quarters. They must be there before they start to lay, for if moved after they have commenced to lay, they will invariably stop laying and perhaps molt.

Many of the poultrymen are now wishing that they had hatched more chicks this spring. Eggs are selling at 75 cents per dozen in the Norwood market and dressed fowl at 45 cents per pound, while grain is a little lower than it has been. There may still be a dollar in the business, at least our western brothers think so. Let's think it over before we sell our birds. Eggs may be a dollar a dozen by November 27th.

For Sale

Single Comb Rhode Island Red Breeding Cockerels, March hatch. Weigh seven pounds. Extra fine, dark strain.

GEORGE HAGOPIAN, Taunton Street, Wrentham, Mass

Home Vegetable and Fruit Storage

In the present emergency when so many people have war gardens, it is important to have suitable storage facilities in every home. Such facilities will not only enable then to keep their own products safely, but to purchase and store a winter's supply of apples and many vegetables at fall prices. At that season such products can usually be bought from the producer at prices to which have not been added the cost of commercial storage, handling charges, and retail distribution. Furthermore, there is a considerable saving of time, and great convenience in having a variety of products immediately available, independent of the weather, the retailer, or the whim of his delivery boy.

PRODUCTS ADAPTED TO STORAGE

There are at least sixteen common products which may be stored successfully for from two to six months.

Group A. Products preferring warm and dry-storage. Temperature from 50 to 65 degrees.

Beans, pumpkins and squashes.

Group B. Products preferring cool and moist storage. Temperature from 33 to 40 degrees.

Apples, beets, Brussels sprouts, cabbages, carrots, cauliflower, celery, onions, parsnips, potatoes, salisfy or oyster plant, tomatoes, turnips.

STORAGE OF VEGETABLES IN GROUP A

Dried beans may be kept at any temperature if in a dry place, and will usually be stored upstairs rather than in the cellar.

Pumpkins and squashes require a dry, warm atmosphere, about 50 to 65 degrees F., and will keep better on shelves in the heated portion of the house.

STORAGE OF VEGETABLES IN GROUP B OR COOL STORAGE

Efficient storage for these vegetables must combine suitable temperature, moisture and ventilation conditions, with capacity in proportion to the size of the family. It must be accessible and should be large enough to hold a winter's supply.

In the majority of New England homes the best place will be found to be a room in the cellar which can be maintained at a low temperature without freezing, kept moist enough to prevent shriveling or drying, and ventilated from a convenient window or other opening. In a heated cellar, a corner partitioned off by a double wall will be satisfactory. If the cellar is unheated and there is danger from freezing, a similar room with the addition of a single boarded partition next to the outside wall will provide the necessary air space to keep out the frost. In extremely cold weather a small electric or oil heater may be used in such a room,

MODEL AND FURTHER INFORMATION

A model storage room in the Massachusetts Food Administration Building will be on exhibition after September 1, 1918, on Boston Common, nearly opposite West Street, where any details and further information will be gladly furnished.

Home Making Department

This Is Not the Time to Slacken

Mr. Endicott urges in his latest message to the public regarding conservation that the American people in no way relax their efforts in food conservation during the coming months. Statistics show us that the immediate food need for the Allies and Army is 28,000,000 tons. Of this amount the Allies can be relied upon to furnish 10,000,000, while the United States has promised 15,000,000 tons. The 3,000,000 tons deficit must come from the United States, and this can be saved only through the most economical living. As it is, 18,000,000 people in Northern Russia are actually starving to death as a direct result of the greed of a few thousands of people, and we are helpless to prevent it.

Reports of favorable crops in many of our food stuffs this year have tended in some instances to a slackening in food conservation. Any surplus food which can possibly be saved this year should be put by for a reserve supply, which every country needs as a resource in a year of poor crops. The food situation this year cannot be considered any easier than it was last winter. On the other hand, the American people must be more careful in the use and waste of food than they were last year. The war is not yet won; the war cannot be won without a sufficient food supply. This is and will continue to be America's responsibility

Cottage Cheese and Its Uses

Cottage cheese is assuming more importance than ever as a substitute for meat. It can be made from skim milk or sour milk and is less expensive as a muscle builder than meat, eggs, and other protein foods. The Government is urging its use to save quantities of skim milk that have been wasted in this country, and to prevent a shortage of dairy products which would be the most serious food shortage the country has known. To stimulate the production of milk and its products, a cottage cheese week was held September 23 to 28 in Boston and other cities in the state under the auspices of the Woman's Committee of the Council of National Defense. One aim of the campaign was to insure a supply of commercial cottage cheese in every city where a demand was created. It is hoped that the demand will be continued where created. however, and not be spasmodic.

The following directions for making home-made cottage cheese are given by the Women's Municipal League in Boston:

SKIM MILK CHEESE

1 quart skim milk 1-3 teaspoon salt 2 junket tablets 1 tablespoon top milk

Heat milk in double boiler until lukewarm. Allow it to remain at that temperature for 15 minutes. Add junket tablets which have been crushed and dissolved in ¼ cup cold water, stirring while adding. Allow to remain until the milk curdles. Strain through cotton cloth, squeezing gently. Mash the curd with a fork, season with salt, moisten with milk, shape, and chill

SOUR MILK CHEESE

1 quart thick sour milk 1-3 teaspoon salt 1 quart hot water 1 tablespoon top milk

Put milk in large bowl. Add hot water and let stand 5 minutes. Strain through cheese cloth, squeezing gently. Mash the curd with a fork, season with salt, moisten with milk, shape, chill and serve.

The United States Department of Agriculture has issued a bulletin containing receipts for using cottage cheese as the foundation of various dishes, in soups, meat substitute dishes, salads, and desserts. Bulletin No. 109, entitled "Cottage Cheese Dishes", may be obtained by writing to the Home Demonstration Agent.

Jelly Making With Karo

The problem of jelly making is rather a difficult one this year, owing to the shortage of sugar. It is not recommended by the Government because of the large amount of sugar necessary. Experiments have been made and found very successful in using part sugar and part Karo corn syrup. In this way, the amount of sugar can be reduced. The following results have been obtained: apple jelly made of 50 per cent. sugar and 50 per cent. Karo was found to jelly perfectly and to be similar to all sugar jelly in flavor; less than 50 per cent. sugar was found to jelly but to be changed in flavor; fruits like grapes, containing less of the jellying substance than apple, will not make successful jelly with less than 50 per cent. sugar.

If jelly is to be made using the pre-war basis of three fourths of a cup of sugar to one cup of juice, and using syrup for one half the sugar, use for every cup of juice (first extraction) one third of a cup of syrup and three eighths of a cup of sugar; for every quart of juice, one and a third cups of syrup and one and a half cups of sugar.

Farm Bureau Exhibits

The following exhibits have been prepared by the Home Making Department and are available upon request for display at the fall fairs. They have already been used on several occasions.

Home-made fireless cooker, with directions for making.

Milk exhibit, showing composition and food value.

Drying exhibit, with equipment and samples of dried and soaked back products.

Apples as conservers of sugar.

Exhibits showing the varying per cents. of sugar in syrups used in canning.

Literature accompanying each exhibit is sent for free distribution.

Junior Club Department

Norfolk Club Members Take Part in Worcester Fair

On September 3, 1918, five girls and one boy, chosen from various towns to represent Norfolk County, went to Worcester with Mr. Dizer and Miss Homer to compete in canning demonstration and canning judging contests with other counties from the State. On the demonstration team were Emily Hallowell of Norwood, Dorothy Healey of Needham, and Helen Findlen of Dedham. They were a red letter team, for they carried off first prize at the Fair, winning a gold medal for Norfolk County. These girls were a credit to the county and deserve congratulations on their earnest work, sincere effort, and splendid results. Mr. Farrell of Washington was the judge. The other competing counties were Hampden, Hampshire, Middlesex, Plymouth, and Worcester.

The judging team, consisting of Marjorie Curra of Canton, Alice Peers of Weymouth, and Fred Mayhew of Walpole, were not successful in winning a prize, but were faithful in their efforts and drill.

Norfolk County was represented in canning exhibits by Emily Hallowell, who received one first prize and two fourth prizes, and by Elizabeth Trahan of Walpole

1918 County Fair at Weymouth

CANNING SECTION

The Weymouth Fair, held on August 30, 31, and September 2, at the South Weymouth Fair Grounds, was opened this year to other towns in the county for exhibits and demonstrations in canning. The children's tent, under the direction of Miss Sarah E. Brassill, Junior Club Leader for Weymouth, was especially noteworthy, since the quality and variety of the work displayed was exceptionally fine.

The sweepstake county prize for the best collection of canned goods, open to all county exhibitors, was won by Barbara Endicott of Norwood, honorable mention by Gladys Price of Weymouth and Emily Hallowell of Norwood. Prizes were also given to Evelyn Martell, Alice Brown, and Marion Curley of Cohasset, Ella Johnson, Madeline Wales, and Velma Holbrook of Stoughton, Oswald Baumgarten of Dedham, Beulah Howard and Alice Cullen of Randolph. The Holbrook club entered as a whole and won a prize similar to the competing clubs of Weymouth.

It is hoped another year to make it possible for every child who competes in an exhibit outside his home town to attend the exhibit, so that he may compare the results of his work with the work of other contestants. In that comparison of results lies the real value of an exhibit, and higher standards and quality of work should follow.

Demonstrations on canning and fruit butters were held in the main hall at various times during the last two days of the fair. The County demonstration team and representative teams from the seven canning clubs in Weymouth gave the demonstrations. The local demonstration teams show the concrete results of the training the children are getting in canning

during the season, and although they require extra drill and time on the part of the local leaders, are considered the most satisfactory end of the club work.

GARDEN SECTION

Twenty three boys and girls from different parts of the county sent vegetables to the Weymouth Fair for the market garden competition, and about a dozen additional ones sent potatoes. This showing was not as good as was expected, but some fine vegetables were exhibited. The children's tent in which the vegetables were displayed attracted a great many people and several thousand had a chance to see what the gardeners have been doing.

Following is a list of the prize winners:

MARKET GARDEN COMPETITION

1st, Mary Damon, Cohasset.
2d, Amelia Silvia, Cohasset.
3d, Adrian Barnes, South Weymouth.
4th, William Blackney, North Weymouth.
5ths, Max Greenburg, West Medway.
Margaret Souza, Cohasset.
Cope Brothers, Weymouth Heights.
Malcolm Stevens, Cohasset.

POTATO CONTEST

1st, Daniel O'Donnell, East Weymouth.
2d, Harry Howard, Walpole.
3d, Mary Modent, Cohasset.
4ths, Herbert Keene, North Weymouth.
Edward Tisdale, Medfield.
Mary Damon, Cohasset.
Frederic Price, South Weymouth.

Summer Achievements of One Canning Club

The Norwood Canning Club, composed of about one hundred children, has completed a most successful season. Their results may be interesting to leaders of other clubs. It will probably not be possible to follow their methods in many instances, since their organization is unique, but they may give ideas which will assist others. The work has been carried on at the Community Kitchen which has been open four days a week. Every morning and afternoon different groups of children have been given canning lessons, while in the afternoon they have been allowed to bring any product they desired to can under supervision. Mrs. Eugene Endicott and Mrs. H. S. Winslow have been in charge, and working hours were from 9:30 in the morning to oftentimes after eight in the evening. Stepping inside the building on any afternoon, one would find a leader with perhaps one helper superintending two or three dozen children who were carning all varieties of products at every possible stage.

The results of the tireless efforts of the leaders and enthusiastic interest of the children may be shown by the fact that 5469 pints have been canned during the summer at this kitchen by the children, many of whom come from homes where heretofore no interest has been taken in this question. This amount does not include any of the canning done at home. Due to the work in the canning club, a direct interest has been awakened at home, and much more material has been preserved in their own

kitchens.

Selection of Vegetables for Exhibiting

Selection of vegetables for show—the picking of the best and the use of it as an ideal—has been receiving a great deal of attention lately. Following is a brief outline on the subject which has been used with a fair degree of success among the children of several towns previous to their garden exhibits:

Requisites for good show vegetables:
1. True to type—not abnor—al.

2. Uniform in (a) size, (b) shape, (c) color.

3. Quality good, uniform.

4. Free from blemishes, insect injuries, and diseases.

Method of procedure in selecting:

- 1. Consult premium list for classes, requirements, etc.
- 2. Look in seed catalogues for pictures of the best shape, size, etc.

3. Gather all of your vegetables available.

4. Discard all abnormal speci ens (overlarge, too small, diseased).

5. Pick one specimen you like the best.

6. Match up as nearly as possible with others to make the required number.

7. Wash or clean vegetables carefully.

It has been found that a little knowledge similar to the foregoing, if given to the children a little while before the exhibit, will better the quality of the material shown and do away with a great many of the freaks, such as hand-shaped carrots, potatoes that look like men, etc., which we often see exhibited and attracting a great deal of attention while plates of perfectly matched table vegetables remain unnoticed.

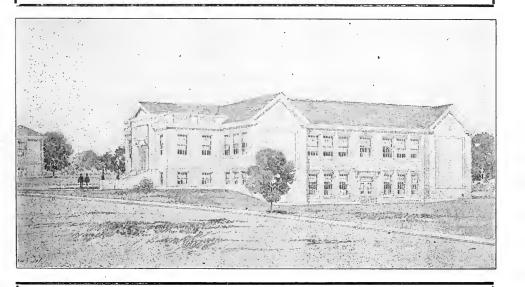


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SCHOOL STAFF

FREDERIC W. KINGMAN	Director
BENJAMIN R. GRAVES	Poultry Husbandry
MALCOLM D. CAMPBELL	Animal Husbandry
JAMES SALTER	Market Gardening
ANDREW N. SCHWAB	Weymouth Dept.
MARY E. SHEPARD	Sec'y and Accountant

FARM BUREAU DEPARTMENT

WILLARD A. MUNSONCounty Agricultural Agent
STELLA S. SIMONDS
EUNICE H. HOMERAsst. Home Demonstration Agent
JOHN T. DIZERBoys' and Girls' Club Leader



Timely Topics

Tractor Schools Being Planned

The Extension Service of the Massachusetts Agricultural College is planning to run four extension tractor schools during the coming winter. These will be located at Pittsfield, Worcester, Boston, and Amherst. The first three schools will be run during the winter when it is impossible to give the students any field work. To make up for the lack of field work, which is essential in learning the use of a tractor, a scheme will probably be developed whereby the people taking the work in these three schools can come to Amherst for out-door training some time in the spring.

One of the serious drawbacks last spring in using tractors was the ignorance of the operators in handling the plows. Many of them were unskilled in plowing, and did not know what a good piece of plowing looked like, and they failed to get the machinery in working order so that the land could be fitted in proper shape. These schools will end avor to train the operators to use the tractor outfits in the proper manner so that when a job of plowing and harrowing is finish d, the ground will be in condition to grow a satisfactory crop.

Registered Berkshire Pigs Purchased

Three purebred Berkshire pigs have been purchased by the School for educational work with the students. These pigs came from the herd of Harry Knights, proprietor of the Overlook Orchard Farm, Littleton, Massachusetts. Mr. Knights has spared no pains in breeding one of the best Berkshire herds in the country. He has won many prizes at the different state and national livestock shows. At his first exhibit of Overlook Orchard Farm Berkshires, at the International Livestock Show, held in Chicago, 1917, the largest livestock show in the world, ten animals won thirteen ribbons: Grand and Senior Championship boar and sow, five first, one second, and three third prizes. This Grand Champion boar Double's Majestic sold after the show for \$1000. We feel that we are very fortunate in being able to secure pigs from a herd which has been bred to such a high degree of perfection.

Order Fertilizers for Spring Use

The people who are in a position to know the fertilizer situation at Washington, and the Extension Service of the State, are asking us to emphasize the importance of ordering fertilizers early. It is felt by those connected with the fertilizer factories that the lack of labor, not only now but during the previous several months, will render them unable to furnish the needed amounts if orders are withheld until the usual time for placing them. The materials which go into fertilizers have to

be purchased some time in advance, and unless the factories know somewhere near the amounts that are to be used, they will be unable to secure these materials in time to mix them for the spring planting season. The fertilizer companies are behind normal production. Transportation facilities are certain to be interfered with by severe storms this winter, and every time they are obstructed, since they are already working beyond capacity, a serious slowing up in the movement of freight will result. If orders for fertilizers are placed early, those farmers who are dependent on their use in raising next year's crop will be relieved of considerable anxiety when the time comes for using them.

Fertilizers for Next Year

Under date of October 17, Professor Earl Jones of the Massachusetts Agricultural College addressed a letter to the County Agent containing the

following information in regard to fertilizers:

There is definite information that fertilizers on the market next year will be lacking in available nitrogen (unless the war comes to an end very soon) from nitrate of soda, ammonium sulphate, and calcium cyanide. Practically all these materials have been diverted to other uses, and the quantity available for use in making fertilizers is so small as to be almost negligible.

There will be nitrogen available for use in fertilizers, but it will have about the same availability as tankage. Much of this will be produced by treating available materials with sulphuric acid. There is a good supply of cotton seed meal. This means that top dressing fertilizers for grass will not be available and that other crops may suffer from the lack of quickly available nitrogen.

We cannot too strongly emphasize the value of barnyard manure this year. Proper handling to save its available nitrogen and potash, its use on as much land as possible, and its economical handling are the points that should be emphasized. To be more specific, attention could well be given to the following points.

1. Top dressing mowings with manure this fall will be very effective in producing a crop next year.

2. Manure should be applied to as much of the cropped land of the farm as possible. Because of the potash it contains, some manure should be applied to potato fields.

3. Labor can be saved by applying manure to the land as much as possible during the fall and winter. This would save time next spring to be devoted to putting in crops.

4. There is some loss when manure is spread on hilly land or there are deep snows during the winter. If under these conditions it can be hauled out and put in large piles during the winter, time would be saved during the spring.

5. Manure should be supplemented with acid phosphate or by

using fertilizers rich in phosphoric acid.

6. The liquid manure is rich in available nitrogen and potash. There should be plenty of absorbent materials in the stable or barn cellar to prevent loss of this.

The value of wood ashes is well known. There will be larger supplies than usual owing to the fact that some factories will burn wood where they have ordinarily burned coal. These supplies should be made available to farmers as far as possible at reasonable prices.

Help Make Gas Masks

The increasing size of the army and the continually increasing number of men on the firing line make it necessary for us to bestir ourselves to collect hickory, walnut, and butternut shells. Five hundred tons of these shells are needed daily by the Government, to make the gas masks required to supply the army. Every person who uses nuts must see that the shells are delivered to the Red Cross for shipment.

Advertising His Fruit

Mr. I. I. Margeson of Westwood is trying to direct-to-consumer plan for selling his 1000 bushels of Baldwin, Greening, and Russet apples. He is advertising in the Boston papers, and consumers are motoring to his farm, selecting their apples and taking them away with them.

Many Harvest Fairs Abandoned

The epidemic of influenza has caused the abandoning of several harvest fairs which had been planned some time ago. Many committees were proceeding to get their halls ready and to advertise the premium lists, so that gardeners could prepare for bringing in their exhibits. The abandoning of these fairs will mean that many communities are left without this influence to inspire the garden interest next year and in some cases to increase it. In several communities the fairs which had been planned were to be much more elaborate than ever before, and the committees had every prospect of having their ambitions realized.

Massachusetts Farmers Go Over the Top

How well the people of the State have responded to the program of increased production is brought out by the following figures taken from monthly reports of Bureau of Crop Estimates, U. S. D. A.

Corn, on which great emphasis was laid, has increased as follows:-

	Acres
1916,	42,000
1917,	61,000
	71,000
Net increase,	29,000
Potatoes:	Aeres
1916	25.000
1917,	28,000
1918,	36,000
Net increase,	11,000

Oats:—	Acres
1916,	11,000
1917,	12,000
1918,	16,000
Net increase,	5,000
Wheat:—	Acres
1917,	700
1918,	2,500
Net increase,	1,800

The increase in rye, barley, buckwheat and beans would easily bring this total increase to 50,000 acres.

At the same time other parts of the production program have been well sustained, that is, the live stock has not only been maintained but increased, and the great acreage of home and community gardens is a tribute to the organized effort of the people.

Farmers and the Draft

In the new draft the district boards are charged with the duty of putting into deferred classes those who are more likely to further the war by remaining in civilian occupations than by entering the Army. Accordingly, three advisors are to be selected for each district board—one for agriculture, one for labor, and one for other occupations. The agricultural advisor will be appointed by the board upon the recommendation of the Secretary of Agriculture. The advisors are not members of the board but may, when invited, attend its meetings.

The duties of the agricultural advisor will be to furnish to the board facts relative to farm-labor requirements, not only of his own district, but of the whole country. He should be the repository of all facts having relation to the deferment of agricultural workers, whether these be necessary farm laborers, managers or operators. He will be expected to advise the district boards as to a shortage or surplus of necessary farm workers for any given district, as well as for the entire Nation. Such information will be supplied to the advisors by the Department of Agriculture. This will make it possible to have necessary workers transferred from districts in which they may not be necessary to other districts in which they are sorely needed.

The advisor may also concern himself with individual cases that come before the district board. He will have the right, under certain conditions, to examine the questionnaires and other records in the files of the local board for the purpose of ascertaining whether persons entitled to deferred classification have actually claimed it. In case he finds the names of such registrants he may file for them a claim for deferred classification with the district board, which, in turn, may require the local board to certify the questionnaire and record of any such registrants for consideration. Reasonable time will be given for the purpose of obtaining information and supply-If a local board determines to consider a case ing the affidavits required. for deferred classification because a registrant is engaged in a necessary occupation, notwithstanding no claim for deferred classification on that ground has been made, it shall endorse the recommendation on the questionnaire of the registrant and forward it to the district board having jurisdic-The district board will thereupon consider the case and proceed to classify the registrant, notwithstanding the fact that no claim for deferred classification by or in respect of the registrant has been made.

CLAIMS IN BEHALF OF NECESSARY EMPLOYEES

A further duty with which the advisor is charged is to confer with employers of necessary farm workers, and to instruct them as to their right under the regulations to file a claim for deferred classification in respect of any registrant who has failed or refused to file a claim for deferred classification in his own behalf. This, in the opinion of the War Department, is a very important matter. The apparent injustice of placing many registrants in Class 1 is often due to the fact that employers have failed to make claims for deferred classification on behalf of necessary workers. It is to avoid a repetition of this trouble that farmers should see that all of their necessary employees, whether sons or other laborers, of the draft age have made for them just claims for deferred classification.

One important explanation is made in the new Selective Service Regulations in connection with the expression "skilled farm laborer." The questionnaire provides deferred classification for the "necessary skilled farm laborer in necessary agricultural enterprise." The new regulations provide that in Class II shall be placed any registrant found to be engaged in a "necessary" agricultural enterprise, and found to be necessary to such enterprise in the capacity of a farm laborer—"cspecially fitted for the work in which he is engaged." This quoted phrase constitutes an explanation of what is meant by "skilled" as applied to farm laborer. The expression will make easier the determination of the status of many registrants.

Farm Loan Associations

According to a letter received from Leonard G. Robinson, President of the Federal Land Bank of Springfield, 117 National Farm Loan Associations have been organized in its district. This Association sent in 4141 applications for loans aggregating \$12,551,784. Thus far, 3055 of these applications for an aggregate amount of \$7,913,595 have been approved. Of these 1793 loans have already been closed, and \$4,839,695 has thus actually been made available to the farmers of the district. The following table shows what this bank has done in the eight states comprising the First Federal Land Bank District to August 31:

	Number of Associations	Number of Applications	Amount of Applications
Maine		527	\$968,055
New Hampshire		126	279,030
Vermont	11	355	1,181,197
Massachusetts	16	726	2,083,535
Rhode Island	2	65	181,960
Connecticut	$\dots 15$	425	1,375,025
New York	39	1546	5,184,947
New Jersey	16	371	1,298,035

Although new applications are coming in daily and loans are being made at the rate of \$500,000 a month, President Robinson feels that not everything is being done that can and ought to be done, to bring home to the farmers of the District the facilities that their Land Bank offers them.

Farmers in Norfolk County who wish information regarding methods of securing a loan through the Land Bank should communicate with the Secretary of the Norfolk National Farm Loan Association of Walpole, Walpole, Mass.

Agricultural Department

How to obtain large production most economically is the great problem of every dairyman. Economical production depends primarily on selection, breeding, and feeding, care and management. It requires that all unprofitable cows be eliminated, that the remainder be bred to first-class bulls, and that each cow in the herd be fed a properly balanced ration according to production. It also requires the intelligent feeding, care, and management of calves and young stock.

Selection and Care of Winter Layers

With eggs retailing at 90 cents per dozen, and dressed poultry at from 40 to 50 cents per pound, the outlook for the poultryman is most enfact, it is so encouraging that we are tempted Into keep our entire flocks. However, we much realize that every for her pullet will notkeep, so we need to select pay We should select those birds that pullets rather carefully. well matured; have prominent, bright eyes, good sturdy legs; wellrounded breasts; full crops; bright red combs and wattles; short, curved beaks; long straight backs; good straight breast bones; smooth clean-cut feathers; thin pliable pelvic bones; and a vigorous constitution. Of course, those birds that have laid in September and October ought to have been banded before, for they possess most of the above mentioned characteristics. The culls may be fattened and sold for Thanksgiving.

Having disposed of the culls, we now have the problem of housing and feeding our selected birds. Of course, the house should be thoroughly cleaned and sprayed before the birds are allowed to enter it. We must remember that from now on, birds will do fully as well when confined to the house as when they are allowed to roam over our newly seeded yards. So we must put them in clean airy quarters. The floor, whether wood, concrete, or dirt, should be covered with clean sharp sand and a good litter. There are several kinds of materials which may be used for litters, and inasmuch as the feed formula depends somewhat upon the litter used, it may not be amiss to discuss the different kinds of litters at this time.

Perhaps some of us, either from lack of time or lack of machinery, will not be able to get our grain threshed, and may decide to put the straw into the houses with the grain unthreshed. This is by no means a new practice and saves grain and labor. Rye, barley, buckwheat, wheat, and oats may be fed in this way, leaving those grains out of the scratch feed used. The birds will soon find the grains and will pick them out. Or, the straw may be used after the grain has been removed, and then the regular scratch feed may be used. To those who do not have the straw, we would suggest leaves, hay (especially rowen containing some clover), silage, pine needles, or even the corn stalks themselves. The use of dried lawn clippings, however, is to be discouraged, because the birds eat the short clipped grass and many cases of crop-bound birds may be the result. The litter makes the birds forage for their feed, giving them their regular amount of exercise, makes the floor warmer, and with the droppings makes a splendid mixture to be spread on the land in the spring.

The feed ration is our next problem. The nutriment in the ration for laying pullets serves a twofold purpose—to repair waste and furnish heat to the body, and to supply the egg-making materials. Only the surplus over what is needed for the body is available for egg production. The proper feed, therefore, should be fed in sufficient quantities to induce this production. Many have discovered that they can get nearly as many eggs by leaving the wheat out of the scratch feed and using bran and middlings or mixed feed in the mash. At any rate, wheat will be almost an impossibility, so that we may leave it out of consideration. Either the "war ration" or the one recommended by the Massachusetts Agricultural College may be used. Here at the School we shall probably use the following ration, which is much simpler than either of the above mentioned, and has produced excellent results:

Scratch Feed

100 lb. Cracked Corn 75 lb. Oats

Mash

150 lb bran 150 lb. middlings 50 lb. beef scrap 50 lb. gluten feed

Succulent food must be supplied in some form. Mangels and cabbage make ideal green feed, one ton of the former furnishing enough feed for 100 hens for the winter. Turnips, carrots, silage, and even apples have been used with varying results. Sprouted oats are used by many owners of small flocks. Beet pulp soaked in warm water for 24 hours makes a palatable feed. However, mangels are probably used to the greatest extent by the owners of large flocks.

For Sale

Single and rose combed Rhode Island Red breeding cockerels from pedigreed trap-nested mothers with good egg and non-broody record at reasonable prices.

E. B. PARMENTER,

Franklin, Mass.

Average Yield of Grain Per Acre

The increased interest in grain growing in this section has prompted a good many inquiries regarding the results of this season's crop, which is now practically all threshed. The Bureau of Crop Estimates of the U.S. Department of Agriculture released on October 14, 1918, a crop report giving the following yield per acre of grains in the several New England States:

Spring wheat, average yield: Maine, 25; New Hampshire, 24; Vermont, 22; Massachusetts, 23; Rhode Island, 27; Connecticut, 22.

Oats, average yield, bushels: Maine, 40; New Hampshire, 38; Vermont, 41; Massachusetts, 41; Rhode Island, 35; Connecticut, 36.

Barley, average yield: Maine, 28; New Hampshire, 36; Vermont, 30; Rhode Island, 31; Connecticut, 35.

Seed Potatoes For 1919

Potato fields planted with Massachusetts grown seed seem to have more weak plants and a more uneven stand than usual this year. The plants vary considerably in height, vigor and often there is a poor stand. Weaker plants are likely to show a rolling of the leaves and brown areas on the leaves, while others are healthy.

It has long been known that for most parts of the state, Northern grown seed is ordinarily better than home grown seed. This year we hear frequently that Northern grown seed potatoes are better than our own and fields demonstrating this are numerous.

Possibly the hot weather of last summer reduced the vitality of home grown potatoes more than usual and some of the poor results may be due to the chilling of the seed during the severe winter.

Because of the above conditions we believe it worth while to make the following recommendations regarding seed potatoes for rext year:

- (1) Plant Northern grown seed potatoes, unless hill selected seed grown in the more elevated regions of Massachusetts can be found.
- (2) Seed from a field having an uneven stand or containing weak and diseased plants should not be used.
- (3) Seed from fields that look well one year may not produce satisfactory crops the next year.

Therefore, it is safer to use Northern grown seed potatoes.

PROF. EARL JONES, M. A. C.

Sweepstake's Corn Matures

While in Medway recently, we had an opportunity to visit a field of Sweepstake's corn owned by Mr. J. G. Sarderson. This variety of corn requires a little longer season for maturing in this section than the Flint Mr. Sanderson had planted this corn to cut for silage, but varieties. seeing that there was a possibility for it to ripen, he allowed a little more than an acre of it to stand until maturity. The amount of corn which this has produced is very satisfactory, and will give considerable feed for his poultry and hogs. Mr. Sanderson claims that the corn cut from this field will turn out the best ensilage that he has ever made. He also thinks that if it had been planted as early as possible, all of it would have matured and could have been used for grain. However, we believe that he will get as much value from the corn in the silo as using it in We believe that a corn which will come near to maturity makes the best ensilage in any case, and if the owner of cows is planning to feed ensilage and has the acreage, it seems advisable to use the variety which will come as near maturity as possible, rather than to use some of the large varieties which produce huge stalks and not many ears.

Two Ways of Killing Bean Weevil

After a crop of beans has been harvested, threshed out, and stored, it is discouraging to find later on when getting a supply of them ready for

cooking that many are infested with weevils. The weevil in all its stages of growth may be killed by treating beans in either of the following methods as soon as they are threshed and cleaned: (1) Place the beans in a chamber and heat them to 140 degrees F. and hold at that temperature If the beans are to be used for seed, this treatment will have some damaging effect upon their germinating power, especially if the temperature is allowed to reach 150 degrees. (2) Put the beans in a tight container and place on top of them a shallow dish containing one ounce of carbon bisulphite for each 100 pounds of beans. As soon as the carbo bisulphite is poured into the dish, cover the container air-tight, and leave The temperature at which this method of weevil control is for 48 hours. most effective is 70 degrees, and if it is below 50 degrees, it should not be attempted. Carbon bisulphite is an explosive and should be kept away from flames, and used with as much caution as gasoline.

A Demonstration in Early Spring Planting of Fruit Trees

The first apple crop on the young orchard of O. N. Mason in Wrentham has been harvested this fall. Mr. Mason has an orchard of 28 acres, containing 1800 trees, divided among the following varieties: Delicious, Winesap, Mackintosh, and Wagner. This orchard has been developed under the system of cultivation, and the trees have grown exceedingly well. In going over the orchard with Mr. Mason, we noticed that one half the orchard was bearing considerably better than the other half. On asking the reason for this, we were told that the half which was bearing so well was set very early in the spring, just as soon as the holes could be dug in the ground to receive the trees. The half which was not bearing so well was set the same spring, only several weeks later. This demonstrates very clearly the difference between early spring planting and late spring planting. If it means that trees will come into bearing a year earlier by being set four or five weeks earlier in the spring, certainly those early set trees are much more profitable, and pay well for the effort to get them into the ground early.

Mr. Mason has harvested a very fine crop of fruit, high colored and very free from insect and fungus diseases. The fruit as it is picked from the trees is handled with all the care possible in order not to bruise it, and placed in boxes to be carried to the shed where it is packed in the western style apple boxes. Mr. Mason told us that the crop was already sold, and that several buyers from the cities had come to the orchard to hid on it. It is very gratifying to him to find that good fruit is being appreciated by those who handle it, and by the consumers.

Prepare to Winter the Bees

To the Beekeepers of the State:

The undersigned on leaving Massachusetts, as a final communication to the beekeepers, urges the conservation of every possible colony to the end of maximum honey production in 1919. Small and weak colonies should be united. (Reference books and bulletins are available on this subject.) Colonies to be wintered in most instances will be housed out

of doors in packing cases. There should be provided at least six inches of insulation on all sides, as packing. Four inches of packing are desirable below and ten inches above. The colonies should be packed in November or early December according to the season. (United States Department of Agriculture, Farmers' Bulletin No. 695, relates to wintering.) Each colony will require before supplies are available in 1919, about thirty pounds of stores. Colonies which are at present short of supplies should be fed before October 1st. (Apiary Inspection Bulletin No. 14 contains suggestions on feeding and wintering.)

PROCURING SUGAR. The Food Administration has authorized the beekeeper 100 per cent. of his needs. Application for this needed sugar should be made to the nearest local Food Administrator, on "Statement B", which form is available through him. It should be remembered, however, that thirty pounds of sugar for each colony is not necessarily to be purchased. It is the difference between the weight of the present stores and the necessary stores. It is advisable not to extract honey from your colonies too closely.

During the past eight years, the writer has enjoyed his work and the continued co-operation of the beekeepers. In resigning the beekeeping work in Massachusetts, he wishes them the fullest success.

Very truly yours,
[Signed] BURTON N. GATES,

Collaborator, Apicultural Investigations, Associate Professor of Beekeeping, Massachusetts Agricultural College.

Amherst, Massachusetts, September 24, 1918.

Home Making Department

The Warm School Lunch

During the year 1918-1919, a country-wide campaign for child saving is to be carried on by the Children's Bureau of the United State Department of Labor and the Woman's Committee of the Council of National Defense. The weighing and measuring of babies which has been carried on in most of our communities is only one feature of this program. The purpose for determining this information is so that the mother may know how nearly normal her child is. Children of the same height should weigh approximately the same if they have been properly nourished and have not been stunted by some disease.

This children's year program not only includes an effort to save a large number of baby lives, which are unnecessarily lost each year, but aims to improve the health of growing children. Too many mothers are complacent about the health of their chi'dren, thi king that the problem of malnutrition is someone else's problem. A survey made by Dr. Thomas Wood of Columbia University, which included ten thousand rural and city school children, showed that malnourished children were not found in one class of children alone, but in all classes. The child of well-to-do parents is not only often badly nourished, but under nourished, because he is usually given too much spending money for candy, soft drinks, etc., and is allowed to cater to his own appetite. In the survey above mentioned, a large per cent. of rural children were found to be improperly nourished. This may be accounted for by the fact that children living in the country usually eat the heavy food provided for the men who do out of door work, and thus overtax their digestive systems; or to the fact that there is so much fruit and food on the farm that the children have the habit of lunching between meals, thus spoiling their appetite for meal time.

High prices and the need of using substitutes for accustomed foods this past year have meant that malnutrition among children has greatly increased. Sevency per cent. of the men examined for the navy were rejected as physically unfit and few adults attain the maximum efficiency of which they are capable. This reflects upon the food which they were given during the early years of their life when the body was developing.

The report of the New York Board of Health for 1918 revealed the fact that 611,000 children, or 61 per cent. of the pupils in the New York public schools, are below the normal standard of nutrition. Practically the same ratio exists in the majority of our schools. Educators everywhere are realizing that it is foolish to try to educate a hungry child or one suffering from the effect of unwholesome food. Germany realized this over a century ago and adopted school feeding as a universal educational movement. In the state of Washington, school lunches are required by state legislation in every rural school, and we find that this movement is spreading with great rapidity.

There is oftentimes quite a misunderstanding as to just what the idea of a warm school lunch is. It is not a lunch served during the morning and afternoon sessions of school as is sometimes imagined, neither is it a course in Domestic Science. It is one or more warm dishes served with the noon meal to supplement the cold lunch brought from home. We are familiar with the care which farmers exercise in preparing and balancing the rations of their stock so that they may realize greater financial returns from their investment. It is not unusual for farmers to have heaters installed to warm the water for their cows to drink in cold weather, realizing that they will produce more butter fat under these conditions. Heaters are also employed in winter for cooking hog feed as a matter of business economy. And yet some of these same thrifty farmers will let their children walk two or three miles in the cold and snow to school, eat a cold lunch at noon, and make the return trip home in the cold before supper. We are slow in coming to realize that our boys and girls must be well and properly fed in order that they become vital men and women properly equipped to give the most efficient service.

The primary purpose of serving something hot at noon to those who carry lunches is simply one of efficiency. In schools where this project has been tried, it has been found to have these definite results: greater interest in school work; increased mental alertness with better school grades; greater resistance to disease; greater physical development; and less need of discipline.

The equipment for serving hot school lunches may be very simple and inexpensive. It may be provided for by a fund appropriated by the School Committee, donated by the pupils of the School, or bought from a fund raised by giving an entertainment. It is better to start in a small way than to buy a large amount of expensive equipment. A cupboard with doors and shelves, made by the boys of the school will provide a place for dishes, cooking utensils, and supplies. A large dry goods box may well be used as the foundation for this cupboard. The stove problem is easily solved as a two, or better still, a three burner oil stove with a portable oven will answer every need. If a school room already has a stove installed for heating purposes, it can be used as well for cooking purposes.

The question of supplies is often raised. Sometimes the parents prefer to contribute money, and in that case the food is all bought, or a sum of money which the teacher can use for supplies may be raised through an entertainment. The food may be brought from home by the pupils, each one taking his turn in contributing. This matter can easily be regulated by the teacher and a record kept. Occasionally mothers may wish to prepare a dish at home and send it to school to be served. A home-made fireless cooker is a great aid in keeping it hot. This gives the boys of the school another opportunity to make a practical application of their work in Manual Training.

The preparation of the hot school lunch is one of the best ways of teaching Home Economics to the girls. The older girls should take turns in managing the lunches for one week at a time. It is well to have them work in groups of two. The managers should be responsible for getting to school a little earlier than usual in the morning, starting the dish, continuing it if necessary at recess time, and finishing it just before the noon hour. The experience which the girls gain in planning the week's lunch menu, deciding upon the amount to make, and getting the food cooked on time, is excellent training in developing initiative, responsibility, and skill in cooking. Two housekeepers should be appointed each week to be responsible for the dish washing, and in this the younger girls and boys also can take part. Following are some simple dishes which have proved popular for school lunches:

Cocoa Creamed rarebit Creamed vegetable so

Creamed vegetable soups of all kinds

Tomato and rice soup
Baked rice or macaroni with
cheese or tomato sauce

Baked Beans Scalloped corn Scalloped fish Creamed vegetables Wiggle

Stews Cottage pie

Baked apples
Custard puddings of different flavors

Tapioca puddings

The chief burden of managing a school lunch will necessarily fall upon the teacher, and no community should undertake the hot lunch without the sympathetic cooperation of the teacher. It will at first make her day's work harder and longer, but the majority of teachers who have undertaken it have become enthusiastic about it. After establishing the routine of getting the supplies and managing the cooking, serving and clearing up, they find that the school lunch, rather than adding to the burden of their work, really makes it lighter, for the pupils are easier to teach and less time and energy is needed upon the discipline problems.

The Home Demonstration Agent will be glad to answer any questions or assist in organizing a warm school lunch in any community where there is a need or a possibility of introducing it. A list of equipment and definite suggestions and receipts will be available at this office for any community desiring to undertake this project as a means of improving the

health of the children and the standard of the school work.

Late Fall Preserves

The majority of householders in Massachusetts have received during the summer twenty-five pounds of sugar with the stipulation that this sugar be used only for preservation work. This sugar has been so carefully used in many homes that there still remains a few pounds which the housewife has kept for her late fall preserving work. Hard fall pears and quinces are just coming on the market and can be preserved in a variety of ways. Cane sugar syrup has been used in the following receipts to stretch the sugar supply.

PICKLED PEARS

2 qt. pears

4 c. vinegar

1 c. sugar 1 oz. stick cinnamon 2 c. cane sugar syrup 12 cloves

Boil sugar, cane syrup, vinegar, and spices ten minutes. Skim thoroughly. Wipe and pare fruit and place in cold water to prevent discoloration. Stick each pear with 4 cloves. Cook in the boiling syrup half at a time, until soft. Place while hot in sterilized jars, filled to overflowing, and seal while hot.

GINGER PEAR

2 lb. hard pears

 $\frac{1}{8}$ to $\frac{1}{4}$ lb. preserved ginger $\frac{3}{4}$ lemon

1½ c. sugar 34 lemon 2 c. cane sugar syrup

Pare and core fruit, and chop. Cover with sugar and syrup and let stand over night. In the morning add chopped ginger and lemon and simmer until amber-colored and the liquid is of a syrupy consistency. Seal in sterilized glass jars.

QUINCE HONEY

1 quince ¼ c. sugar ¾ c. cane sugar syrup 1 c. water

Bring the sugar, syrup and water to the boiling point, and add the grated quince. Cook slowly until the quince is of a reddish amber color and the liquid is of a syrupy consistency.

CIDER SYRUP

Cider apple syrup may be made from cheap fruit and can be used to sweeten apple products, and as a substitute for maple syrup. Place 7 cups of cider in a large kettle and heat. Add 4 teaspoons of powdered chalk, boil five to ten minutes. Pour into quart jars and let stand. When clear, pour off the clear liquid and evaporate to one cup. The powdered chalk neautralizes the acid in the apple.

Dairy Situation in Eastern Massachusetts Changes

During the summer months there has been a surplus of milk in Massachusetts, and the housewife has been urged to use all dairy products abundantly.

Now that the cattle are not turned out to pasture, and owing to the fact that many dairy men have felt obliged to sell their cows, we are experiencing a shortage of milk which directly affects all dairy products.

We must still use all the milk that we are able to get, for there is no other food that gives us so great a return for the money spent. The Food Administration is asking us to use butter with economy until larger supplies are available. Butter substitutes should be used entirely in the preparation of foods. A special request has been made that the American cheese be used sparingly, as this product is needed in large quantities to ship to our armies in France. Cottage cheese, however, may be used freely. It is easily made and is very nutritious.

Regarding Our Wheat Flour Purchases

The ruling made by the Food Administration limiting the amount of flour sold to individual customers to one eighth of a barrel or one bag of flour, has been removed.

The Food Administration has preferred to set no hard and fast limit on the amount purchased, requesting only that consumers should purchase in moderate amounts consistent with economy of delivery, and should in every case use at least one pound of substitutes with each four pounds of flour.

It is more important now than ever before that economy be exercised in the use of flour. The crop of 1917 was exhausted almost to the last bushel before the new harvest became available; but the present prospects are that if the American people live strictly up to the 80-20 program, and in addition make the usual amount of corn bread with little if any wheat flour, there will be a margin of safety to carry over lagainst a possible shortage in the next crop.

1918 Preservation Census Delayed

The housewives in Massachusetts have been asked to keep a record this year of the amount of canning, salting, jelly making, and pickling which they have done so that it may be determined to what extent the people of Massachusetts have made themselves self-supporting for the coming winter. The results of these records will also give an idea of the importance of the home effort in relieving the food situation. This undoubtedly will be quite gratifying to many housewives who feel that their efforts are so futile.

The Massachusetts Food Administration and the Massachusetts Agricultural College have printed census sheets which are to be circulated throughout each community, and on these the preservation work done in each household is to be recorded. These sheets have been given to the Food Conservation Chairman in each town, the number of sheets in each town being based on the population of the town. The means of circulating these reports will depend wholly on the local committee.

The epidemic of influenza so prevalent throughout the country has interfered greatly with the taking of this census and has made it necessary

to extend the time to November 20th for completing the work.

In the food survey which was taken one year ago, Norfolk County was able to fill 100 per cent. of the records assigned. We are hoping for as good a rating in the 1918 food preservation census. Will you not coperate with your local conservation committee and assist them in making the records from your town complete?

Junior Club Department

Results of the Home Economics Club Work in Norfolk County

The Home Economics Clubs which extend from February 1 to May 1 are proving to be of increasing value each year. Their work does not supplant the Household Art instruction in the schools, but supplements it by practical application in the home. Many a mother has found her housework lightened by the assistance of her twelve-year-old daughter in breadmaking or preparing meals, or by helping with the family darning. Garments for younger sisters and brothers aid materially in increasing the scanty leisure of busy mothers.

The club requirements, which include bread, garment making, and housekeeping, are as follows: During the three months the member must perform twenty hours of either bread or garment making, and forty hours of household tasks. She must exhibit the garments made, together with her patch and darn. These are preferably made on some garment instead of on a practice piece of cloth. Or, if she has chosen bread making, a loaf of bread, war bread at this time, is exhibited and carefully scored by the judges. Keeping an accurate record sheet of time spent and work accomplished, and the writing of a story of experience, complete the four requirements.

Many members who faithfully completed the required work in garment and bread making were unable to finish the records and story, and therefore lost the club pin. This brought down the percentage of members finishing all requirements, and made few banner clubs throughout the

county.

In Norfolk County, 615 members enrolled, and 257 completed the state requirements. Many others who did not complete these requirements derived much benefit from the work. A summary of the work done by the Home Economics Clubs throughout the state has shown that Norfolk County has more members completing the club work than any other county in the state. It is hoped another year that we will have a larger percentage of the enrolled members completing the requirements. With the enthusiasm of the club members, and with more idea of the responsibility in finishing a task once undertaken, we are sure of the hearty cooperation of leaders and parents to help make the coming season even more successful.

1918 Home Economics Club Prize Winners

It was decided this year to give a first and second prize in each county for the Home Economics Club contest, instead of state prizes. The first prize is a week's camping trip at Amherst at the Agricultural College, the second a book. Many a boy or girl has spent one of the most delightful weeks of his life among the hills of western Massachusetts.

To gain these prizes, the members must have fulfilled all the requirements, have done faithful conscientious work of high standards, and have shown an enthusiastic and ambitious club spirit. Often a girl who has

worked under difficulties has mined the true idea of club work by cheerfully assuming responsibilities at home, and has assisted in the club by her hearty support. Such a girl is more worthy of a prize than one who has done higher quality of work but has lacked helpfulness and perseverance.

We are glad to announce the following prize winners in this county: In sewing: 1st, Esther Fitts of Medfield; 2d, Sibyl Percival of Medfield. In Bread Making: 1st, Dorothy Healey of Needham; 2d, Marie Davis of Weymouth.

Pig Club Notes

The following verse which has been used in country sections in the Liberty Loan campaigns may well apply to club members, for many of them have told me about bonds and war saving stamps they have been buying with the financial returns from the club work:

"There was a Yankee farmer, and he raised a Yankee pig. He fed it Yankee corn, and he made it fat and big. He sold that Yankee pork, and he bought a Yankee bond, And it paid for Yankee bullets that went straight across the pond."

November will see the completion of the 1918 Six Months Growing Contest which has kept many boys and girls busy during the summer and fall. Soon after December first, the club stories and records will be due, and then the tabulating and grading will begin, to determine who has been the best club member for the season. Many last year's members have learned a lesson about how to win in a club contest, so in addition to raising good pigs they are planning on sending in well-written stories with neat covers and accurate well-kept records. All of these things are necessary and important parts of the club work.

SOW AND LITTER CONTEST

Not every club member can have a sow, and neither are all the sows owned by club members good enough to save for breeding, but there are a good number scattered over the county which can and should be saved and bred for spring litters of little pigs. The Sow and Litter Contest was started a year ago, primarily to take care of these boys' and girls' pigs which were to be saved. This year the same contest is to be carried on. Boys and girls owning brood sows (whether in the growing contest or not) can enter the contest to see which boy or girl can get the most, best, and cheapest pigs from his or her sow. Enrollment cards and instruction sheets will be sent all club members entered in the Growing Contest, some time in November.

Briefly, the requirements are that the boy or girl keep cost records from time of breeding until the little pigs are weaned, write a story and send it in with the records.

Last spring the demand for little pigs was so great that any sort of a pig so long as it had a squeal left, found a ready market at a good price. Because of this, much poor and scrub stock found its way to market, with subsequent disappointment to the purchasers. By saving the good sows, caring for them correctly, and giving the little pigs a chance to grow, members in the Sow and Litter Contest can do a great deal to help remedy this condition another spring, and put on the market little pigs that will grow and at the same time turn in a good bit of money with which to buy Liberty Bonds and thrift stamps.



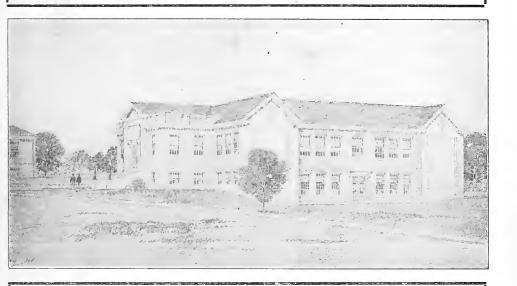
NORFOLK COUNTY AGRICULTURAL AND HOME MAKING BULLETIN

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SCHOOL STAFF

FREDERIC W. KINGMAN	Director
BENJAMIN R. GRAVESPoultry Hu	usbandry
MALCOLM D. CAMPBELLAnimal Ho	usbandry
JAMES SALTERMarket G	ardening
ANDREW N. SCHWAB	ith Dept.
MARY E. SHEPARDSec'y and Ac	countant

FARM BUREAU DEPARTMENT

WILLARD A. MUNSONCounty Agricultural Agent
STELLA S. SIMONDS
EUNICE H. HOMERAsst. Home Demonstration Agent
JOHN T. DIZER Boys' and Girls' Club Leader



Timely Topics

Practical Short Course in Agriculture

The Massachusetts Agricultural College is this year offering a short course in practical agriculture, intended to meet the needs of young men and women who wish agricultural instruction of a practical nature. This course should appeal to all young men and women who wish to make the farm produce more and pay better. It is intended as the first term of a two-year course, but the work of each term is complete in itself. This first term runs from December 2, 1918, to March 22, 1919. Students may thus secure training during the winter months which will increase their productive efficiency, and return to the farm in time for the spring work. No entrance examinations are required, and the tuition is free to residents of the Commonwealth.

The instruction will be given by the regular college faculty, and the class room work supplemented by laboratory work with the college farm equipment. The results of the latest investigations in agricultural science and their practical application will thus be made available to the students in these short courses. Following is a list of subjects offered, from which students may choose those that meet their individual needs: Soils, Field Crops, and Fertilizers; Selection, Breeding, and Care of Farm Animals; Business Principles of Farming and Marketing Farm Products; Poultry; Dairying; Fruit Growing; Market Gardening; Insect Pests and Plant Diseases; Farm Management; Farm Machinery.

For Sale

Single and rose combed Rhode Island Red breeding cockerels from pedigreed trap-nested mothers with good egg and non-broody record at reasonable prices.

E. B. PARMENTER, Franklin, Mass.

For Sale

é

100 bu. Sheffield Yellow Cap Corn, 200 bu. Stickney Yellow Cap Corn. Buy now and be ready for next spring. Price \$5 on the ear until March 1st, then on the ear or shelled.

M. A. EVANS, West Wrentham, Mass.

Meeting of Norfolk County Associated Boards of Trade

On Tuesday evening, October 29, the Norfolk County Associated Boards of Trade were guests of the Walpole Board of Trade at the Agricultural School. The speakers on this occasion were county officials and employees, officers of the Agricultural School, and the State Agricultural Agent of the Board of Education, namely: Samuel Capen, Sheriff; H. D. Humphrey, Treasurer; R. B. Worthington, Clerk of Courts; Erastus Worthington, Civil Engineer; E. F. Richardson, County Commissioner and Presi-

dent of the Board of Trustees of the Agricultural School; F. W. Kingman,

Director; Rufus W. Stimson, State Agent.

The scope of the county's activities and the relations of the State and Federal governments to the Agricultural School were presented in an able manner. Meetings of this kind are valuable in placing county institutions and particularly the Agricultural School, before the public in the right light. Mr. Stimson-explained how the school, which had started in time of peace, had risen to meet the War Emergency. Practically half of the expenditures for the past year have been made for the Farm Bureau Department of the School. The Federal and State governments share in the cost of this service. The school aims to help every community in the county through its extension work.

Weymouth Branch Opens Third Year

The Agricultural Department of the Weymouth High School, which is a branch of the Norfolk County Agricultural School, opened the fall term of its third year on October 23, 1918, with ten students enrolled. The Weymouth Department is under joint control of the State, represented by Mr. R. W. Stimson of the State Board of Education, and the Board of Trustees of the Norfolk County Agricultural School, with Mr. F. W. Kingman as Director.

It is the purpose of this department to enroll only those boys of the South Shore section of Norfolk County who are seriously interested in some form of agriculture, and whose parents are willing to cooperate with student and instructor to the fullest extent. The course offers a study of scientific agriculture dealing with the following subjects: Market Gardening, Dairying, Poultry Husbandry, Fruit Growing, Soils, Manures and Fertilizers, Feeds and Feeding, Field Crops.

Interested parties should communicate with either Director F. W. Kingman of Walpole, or the Weymouth Department, located at the High

School in East Weymouth.

United States Department of Agriculture Favors Drawing Potash From Home Sources

At a conference on the American potash situation, held October 15, in the office of William Wallace Mein, assistant to the Secretary of Agriculture, in charge of fertilizer control, it was stated that the view of the Department of Agriculture is that the Government should do all that is possible to encourage the production of potash from the cheapest sources in this country, in order to enable farmers to obtain it at a low rate, because foreign supplies are now unavailable.

SOME PROMISING SOURCES

Some of the domestic sources of potash that may be further developed are blast furnaces, from the fumes of which potash-bearing materials may be precipitated; cement mills, greensand, certain shales, the brine of some lakes, mostly in Nebraska, and the giant seaweed (kelp) of the Pacific Coast.

The domestic production of potash for the coming year is expected to be about 60,000 tons, much more than the previous year, but still only about one-fourth of the annual prewar consumption, according to A. W. Stockett, of the Bureau of Mines.

MANY CROPS NEED POTASH

Representatives of the Bureau of Plant Industry of the Department of Agriculture pointed out that certain crops in the East are showing unmistakable signs of "potash hunger," and the general agreement at the meeting was that farmers should be informed of facts bearing on the value of potash for crop production, and that all efforts should be made to supply the farmers' demand.

Agricultural Department

Winter Protection for Strawberry Plants

Material for covering the strawberry beds should be ready for use, and as soon as the ground is frozen sufficiently hard to bear the weight of a man walking over it, the strawberries should be covered. Leaves, corn stalks, meadow hay, or pine needles are generally used, but be careful in applying the cover not to put too much on the crown of the plant. It is better to have the crown lightly covered and most of the material between the plants. Do not use vegetable rubbish containing weed seeds, because these seeds will grow next year and cause a lot of work to keep the weeds cleaned out. The mulch protects the ground from sudden thawing and freezing which "heaves out" plants not protected.

Have You Learned the Lesson?

As each spring comes, somebody is quite concerned as to how he can save fruit trees that have been girdled by mice and rabbits. Owners are ready to go to any reasonable expense to save injured trees, yet almost every one of these growers has been warned and urged to protect his trees by putting wire netting or paper about the trunks. The wire should extend from an inch or two below the surface of the ground to fifteen or twenty inches above. If there is mulch or grass about the trees, it is well to remove it, thereby giving mice no opportunity to nest where they are in easy access to the trunks. It is easier to keep trees from being injured than it is to repair the damage once it is done. Those who have had losses by neglecting to protect their fruit trees realize the necessity for doing it, and those who have not taken precautions to ward off mice and rabbits will learn a costly lesson if the practice is continued.

Are the Berry Bushes Ready for Winter?

If the old fruiting canes of the raspberry and blackberry bushes have not been cut out, do this before winter begins. After the fruit crop is matured the fruiting canes die and are likely to harbor insects and diseases. Cut out and burn these and also all small weak canes. Mulch the patch with rotted stable manure or other decayed vegetable matter and work this into the soil in the spring.

Getting the Garden Plot Ready for Winter

By the time these notes appear in print, the harvesting and storing of the various vegetable crops should be completed and everything in the garden cleaned up. Do not allow any weeds or litter to lie around; insect pests of various kinds are making their headquarters for the winter in such

A good plan is to make a compost heap of stable manure, leaves, weeds, sods, etc., piling in alternate layers, and next spring the compost can be thoroughly broken up and passed through a three fourths inch mesh screen, making (with the addition of some sand) just the right kind of soil in

which to sow seeds of early vegetables.

Bean poles should be looked over, and any that are sound enough to be used another year should be stored in a dry place. A good way is to tie them up in bundles of ten or twelve and set them in a corner of the shed or barn, or put them overhead on the cross beams where they will be out of the way and ready when needed.

Hotbeds that are intended to be used very early next spring should be covered up and means provided to prevent the inside from severe freezing. Otherwise a large amount of heat from the fermenting material used in

making up the hotbed will be absorbed and its efficiency impaired.

All garden tools cost money, and therefore should not be allowed to pass the winter out of doors. Clean them, wipe over the bright parts with an oily rag, and have a place in some building to put them.

Fall Plowing Shows Results

Mr. C. A. Wilson of West Medway has proven the advantage of fall plowing in a field of corn on his farm, one part of which was much more thrifty and gave a much better yield than the remainder. The treatment of the crop with regard to seed, fertilization and cultivation was the same for the entire field, with the exception that Mr. Wilson had started to plow the piece last fall when the ground froze and prevented his finishing. poorer yield was on the portion of the field which was not plowed until Fall plowing gets a lot of work out of the way before the spring rush, it gives the frost a chance to help out with the harrowing of the land, and contact with the subsoil is pretty thoroughly re-established by planting time.

Forcing for Egg Production

Many calls have been received during the last month asking "how to Sometimes it is possible to make hens lay and some-ble. Some hens lay fluently and some lay rather inmake hens lay." times it is impossible. The question is, do we really want our hens to lay now? fore we answer this question, we should decide whether we wish to use these birds for layers or breeders. If we wish to use them for laying purposes only, then it may be policy to force them through the molt. This may be done by the addition of a small amount of oil meal to the regular ration, provided the ration does not already contain oil meal. sunflower seeds are added to the scratch feed to hasten the molt. feed is also essential.

If we have decided to use our birds as breeders, it may not be advisable to hasten the molt and endeavor to force for egg production. Experiment Stations tell us that the eggs from hens that have been forced

for egg production do not hatch as well as those not forced.

Substitution of Mixed Feed for Bran and Middlings

In some parts of the county there seems to be shortage of middlings. Here at the School in poultry feeds we have been using mixed feed in place of bran and middlings with excellent results.

Home Making Department

Patriotic People are Using Squash

A recent survey by marketing agencies and members of the Food Administration brings out the fact that the squash situation at this time is really serious, because the markets are glutted, due to the fact that hundreds of tons of squash for want of storage facilities must be moved immediately to prevent almost total loss through freezing. We have produced some of the best squash ever raised in the State, but strange as it may seem, it is not keeping well, and if it is to be saved it must go into consumption immediately. The growers responded splendidly in the spring to the appeal for greater food production, and were rewarded with a large yield of squash. To buy squash is not only good economy, it is also sound patriotism.

Use squash liberally, regularly—buy a whole squash at a time to reduce waste and extra cost of handling. This is one way to help the conservation movement and thus carry through to the end the splendid pro-

gram started last year.

SQUASH BAKED IN THE SHELL

Wash squash. Cut into halves, or into quarters if it is very large. Remove seeds. Bake in a moderate oven. When it can be easily pierced with a fork remove from the oven, scoop the squash from the shell, mash, season with butter, salt, and pepper. Serve hot.

SQUASH PIE

Use the dry mealy squashes. Stew or bake the squash until tender. Sift it and allow one cup and one half for an ordinary sized pie. Mix with the squash one and one half cups of boiling milk, one half cup of sugar, one half teaspoon of salt, one fourth teaspoon of cinnamon, and one egg beaten slightly. Line a granite pie plate with paste, allowing enough for a fluted rim, fill with the squash mixture, and bake in a hot oven until the crust is brown, and the squash puffs up in the center.

SQUASH MUFFINS

1 c. sifted squash 1 c. milk 3 c. flour

2 T. shortening 2 T. sugar

2 T. cream of tartar 1 t. soda

Cream shortening, add sugar, egg well beaten, and squash. Sift flour, cream of tartar and soda together. Add flour and milk alternately to first mixture. If the squash is very dry, more liquid may be added to make a drop batter. Bake in a fairly hot oven twenty to thirty minutes.

Sweet Desserts With Little Sugar

Since it is still difficult to obtain sugar in many localities, it seems probable that many housewives are having difficulty in their cooking. In spite of the fact that the sugar allowance has been increased, it is not always easy to get, and the nation still feels the pressure of the sugar shortage.

There are many substitutes for sugar on the market, the most common being honey and the various syrups, maple, cane, and corn. Saccharin has been used to a slight extent as a sweetening for tea and coffee but it is regarded as an adulterant by the United States Department of Agriculture, and its continued use is likely to impair digestion.

In regard to the syrups, those made from sugar cane are milder and sweeter on the whole than those from corn. They also lack the pronounced flavor which makes corn syrup so objectionable to many people. A combination of maple and cane has given the greatest satisfaction thus Many people who object to all syrup in cooking are using part syrup and part sugar, thus stretching the possibilities of the sugar allowance and securing the same flavor as with all sugar. When substituting corn syrup for sugar in any recipe, slightly increase the amount of sweetening and decrease the liquid. In using cane syrup, a little less syrup than the amount given for sugar is required, since the cane syrup is very sweet. Judgment will be needed in determining the amount of liquid necessary. It must be remembered in using any recipe where syrup is advocated, that every brand of syrup varies in sweetness and consistency, and must therefore be experimented with to determine the best results. Honey being somewhat acid, requires the addition of soda to neutralize its acidity. One eighth of a teaspoonful to one cup mixed with the honey proves very satisfactory.

It was with the idea of sugar saving rather than substituting that a circular of forty recipes has been compiled by the Home Making Department and is available for distribution at cost, two cents a copy. Single copies may be obtained upon request, or in quantities through the local Food Conservation Chairmen. The recipes have been collected from many sources, but have all been tested by this department before being recommended. Following are some recipes taken from this circular.

c. cup

t. teaspoon

T. tablespoon

CARROT PUDDING

1 c. raw grated carrots
1 c. chopped suet
1 c. raisins
1/2 c. syrup
1/2 c. brown sugar
1 t. cinnamon
1 c. raw grated potato
1 c. raisins
1/2 c. wheat flour
1/2 c. barley flour
1 t. cream of tartar

 1½ t. cloves
 1½ t. scda

 1½ t. salt
 3¼ t. nutmeg

Mix in order given and steam three hours. Serve with mock whipped cream or sauce.

PRUNE AND RAISIN PIE

One large c. prunes soaked over night and simmered the next morning until soft. Remove pits and chop with $\frac{1}{2}$ c. seeded raisins. Add 1 T. lemon juice and 1 T. syrup and $\frac{1}{4}$ t. salt. Bake between two crusts made of barley flour. This is better than all prunes.

CREAMY RAISIN PUDDING

Mix and bake in very slow oven for three hours, stirring occasionally. Serve hot or cold with top milk.

MOCK WHIPPED CREAM

1½ T. cornstarch
1 T. sign"
2 erg whites
½ t. salt

Make a sauce of cornstarch, sugar, and milk. Cook until thick. Beat whites separately Pour sauce slowly on one white, stiffly beaten, and then fold in the other. Flavor with vanilla.

GRAPE TAPIOCA

2½ T. minute tapioca
1 pt. grape juice
14 t. salt
12 t. vani'la
1 egg

Cook tapioca in heated grape juice twenty minutes or until clear. Add syrup to yolk of separated egg. Beat until light. Beat the white into a froth. Add the yolk to the cooked tapioca. Stir and cook for one minute. Remove from the fire, add the vanilla and lemon juice, and fold in the stiffly beaten egg white, and pour into a wet mould. Serve with custard. Other fruit juices or other flavors may be substituted for grape juice.

PEANUT BUTTER COOKIES

1/2 c. syrup
1/3 c. peanut butter
1/4 t. salt
2/2 t. salt
2/2 t. salt
2/2 c. rolled oot; put through food
2/4 t. baking powder

peanut butter 1½ t. baking powder
Mix dry ingredients. Add egg beaten with syrup and then peanut
butter. Drop from teaspoon on greased tin and bake quickly.

CHOCOLATE CAKE

 $1\frac{1}{2}$ c. barley flour 1 c. syrup 3 t. baking powder 1 ϵ gg yolk $\frac{1}{4}$ t. soda $\frac{1}{4}$ c. water 2 T. fat 1 t. vanilla $\frac{1}{2}$ squares chocolate $\frac{1}{2}$ t. salt

Melt fat and chocolate together. Sift dry ingredients. Beat egg yolk, add syrup and water, and beat well. Combine liquid and dry ingredients. Add chocolate and fat. Bake as little cakes or loaf.

Community Canning Kitchens in Norfolk County

With the stimulus given to food production last spring, and the existing need for each family to become self-sufficing in providing an adequate food supply for the coming winter, several towns thought it advisable to

establish canning kitchens as a means of ircreasing food preservation. Community canning kitchens were etablished in the following eight towns in Norfolk County, and in the majority of these towns were active for two months during the summer: Brookline, Cohasset, Dedham, S. Dedham District, Franklin, Milton, Norwood, Quincy. The committees responsible for these enterprises have felt that the following definite results have been realized

from these community organizations:

(1) the amount of food preserved has been greatly increased, and food material which would otherwise have been wasted has been saved; (2) families that would otherwise have depended upon a commercially canned product have been provided with a winter's supply of fruits and vegetables; (3) the products canned have been done for a minimum cost; (4) much educational work has been done by giving the volunteer workers excellent practical training, and in furnishing an information bureau on preservation subjects to the women of the town. Statistical reports received from seven of the eight canning kitchens show that 37,515 jars of fruits and vegetables and 133 jars of jam have been canned during the summer of 1918 in the Norfolk County community canning kitchens.

Unique Organization of Dedham Canning Kitchen Proves a Practical Success

Early last summer a committee was formed in the Oakdale district of Dedham to consider the advisability of starting a public cannery in that They felt that an experienced worker in food preservation was as much an essential in a country community as an agricultural expert, and that if such a worker were provided canning could be done more cheaply in the community kitchen than at home. There being no fund for this purpose in the town, the committee secured a subsidy from private sources for paying their expert, and a price was set at four cents per jar to cover the cost of fuel, salt, and rubber rings. At this price they believed that no one would be excluded from the cannery by reason of expense. committee secured the services of Miss Murray, head of the Domestic Science Department of the Dedham schools, as manager of the kitchen. Through Miss Murray, and with the cooperation of the school authorities, thirty-eight girls gladly agreed to give their labor a certain number of days during the ten weeks term of canning. They were to receive careful instruction and in return for regular attendance and satisfactory progress were to receive credits on their school course in Domestic Science. In addition, the committee offered thrift stamps for the girls holding the record each week for neatness and general efficiency, and a prize was offered for the season's best work.

The cannery was open four days a week and a general invitation was extended to the public to attend at any time, in this way making each session a demonstration to those wishing to preserve food at home. That community canning for a popular price is a real help to every housewife in these days when additional labor is so hard to procure, has been unquestionably proven by this experiment. Over 140 families have profited by the opportunity, and several have learned the process. There has been a great stimulus in experimental canning in the community, and many housewives can exhibit on their shelves such unusual products as corn canned on the ear, vegetables, salads, shelled beans canned with bacon, and oysterplant.

The cannery closed in early September with a season's record of 5137 jars canned with one tenth of one per cent. spoilage. The largest num-

ber of jars canned in a single day was 336. All of the girls who signed for the class came through with credit for attendance. Some became so expert that they formed a demonstration team, and on more than one occasion gave public demonstrations. Many of the girls have gone into their homes and relieved their mothers of the labor of the summer's canning, and a few of the most interested have decided to shape their course at the High School so that they may fit themselves later to be experts in the expanding field of Household Arts.

Foxboro Food Conservation Committee a Vital Factor in the Town

The Woman's Food Conservation Committee in Foxboro has proved itself on more than one occasion to be of inestimable value to the community. Its latest venture has placed it in the front ranks among the influential organizations in the town.

In order to raise money for carrying on its work, the Red Cross Chapter in Foxboro planned to hold a carnival on Labor Day, 1918. town common was selected as a suitable place for this affair, and all societies in the town were asked to arrange booths which would in some way earn money for the Red Cross. The Food Conservation Committee in this small town has a very enthusiastic and original chairman, and with her committee she immediately set to work to plan and develop the following scheme. They decided to ask everyone in the town to make some contribution in the way of vegetables, fruits, canned products, jams, and jellies, or cooked foods, which could be sold on the day of the carnival. The chairman contributed three teams from her farm, and three days before the carnival these teams were sent out to scour the town with a house to house canvas. The committee was quite overwhelmed with the variety and amount of food contributed. Every conceivable kind vegetable and fall fruit was received and attractively arranged in baskets around the booth. Many small baskets containing a cabbage, carrots, turnips, beets, vegetables necessary for a boiled dinner, were arranged and readily sold. In a glass show-case were displayed for sale home-made conservation bread, muffins, cookies, cakes, pies, and molasses doughnuts. Three dressed chickens found a very ready market. The members of the Conservation Committee compiled a sheet of recipes for five different con-These cakes were displayed and sampled by sponge cakes. many interested people, and the sheet of recipes sold. Two members of the committee each contributed a half cord of wood. Chances on the wood were sold for 10 cents each, and a sheet of sponge cake recipes was given with each chance. A woman in the town, noted for making excellent potato salad, contributed a large yellow bowl of salad. This was soon sold, and she filled the bowl with more salad, which disappeared as readily.

The Conservation Chairman owned a cider press, and just to introduce a little novelty to the occasion, she had the press placed on a wagon with a rustic fence of white birches built around it. All of the drop apples were picked up and carried down to the Conservation booth to be ground into cider. Two men volunteered to take charge of grinding the apples; three girls, dressed in checked gingham aprons and sunbonnets dispensed the cider as it was made in old fashioned yellow mugs. The cider press proved to be the most popular booth on the grounds. They started selling

cider at 5 cents a mug at 10:00 A. M. and sold continuously, not even taking time to eat their meals, until 10:00 P. M. In the evening the wagon was lighted with jack-o-lanterns made from crooked neck summer squash. Fifteen hundred drinks were sold. From the cider alone, \$75 was netted. The sales of cider so far exceeded their expectations, that the original supply of apples was soon exhausted. Permission was obtained from people living nearby, to pick up the drop apples under their trees, and so a plentiful supply was furnished.

Two members of the Conservation Committee were present at the booth during the day, giving information regarding food conservation, and distributing literature and recipes. A point was made to emphasize and explain the making of cider apple butter, and the Conservation Chairman has recently reported that since the carnival she has had many telephone calls, oftentimes numbering as many as three a day, asking for information

regarding the making of apple butter.

As a result of the day's sales, the Food Conservation Committee cleared \$175 which was given to the Red Cross Chapter. This was \$100 more than any other organization contributed. The chairman of the Red Cross Chapter was very appreciative for the contribution of money which the committee gave, and thanked them not only for the attractive booth which they displayed, but for the educational work which they had done.

Coming Events: Winter Extension Schools— 1919

Two-day extension schools for home-makers are being considered by some of the towns in Norfolk County. These schools are held in cooperation with the Massachusetts Agricultural College and the Norfolk County Farm Bureau. They offer a program which includes a variety of lectures and demonstrations of interest to the home-makers. Following is a program:

PROGRAM FOR A TWO DAY EXTENSION SCHOOL First Day

A. M. The Challenge

Demonstration—How to make a little meat go a long way.

P. M. Talk-Planning our meals at war time prices.

Illustrated talk—Labor saving devices. Questions and discussion.

Second Day

A. M. Demonstration—Supper dishes for winter evenings.
Illustrated talk—Possibilities in remodelling clothing.

P. M. Demonstration—Three meals a day. Talk—Child Welfare.

A "Carry On" program.

The Home Demonstration Agent will gladly make arrangements for introducing this school in any town that so desires.

Junior Club Department

Achievement Day of Norfolk County Success Club November 23, 1918

The second annual Achievement Day of the Norfolk County Boys' and Girls' Success Club attracted over 125 boy and girl delegates to the Norfolk County Agricultural School at Walpole, on Saturday, November 23rd. The meeting was under the direction of the Junior Department of the Farm Bureau, and the attending delegates represented the various clubs—pig, poultry, canning, home economics, gardening, etc.—from nearly all the towns in the county. The delegates in most cases were prize winners in their local towns, and were selected to attend the meeting as town representatives because of the good work they had done or for the good club spirit they had shown. Most of the town groups were accompanied by their local leaders, who have in a large part been responsible for the excellent work of the boys and girls during the past year. A number of the school superintendents and other interested people also attended the meeting.

A few selected exhibits of club work, with a number of posters and charts, helped to give the older people a better idea of what the boys and girls have been doing, and served as a basis for giving information.

The day's program began at 10.30 with a series of competitive games which lasted until lunch time . A basket lunch was supplemented by cocoa, ice cream, and cookies, the cocoa being made in the newly equipped experimental kitchen at the school. The first meeting of the afternoon was the real organization meeting of the Success Club. Every club member in the county who finishes his club work is a member of the club, but since it is impossible to get together all these people, the town delegates carry on all necessary business. The work of the organization was explained by the county leaders, and the following officers were elected for 1919: President, Adrian Barnes, South Weymouth; Vice President, Charles Harris, West Stoughton; Secretary, Elsie Cowen, Canton; Treasurer, Helen Findlen, Dedham. Chairmen of Committees: Canning, Emily Hallowell, Norwood; Home Economics, Dorothy Healey, Needham; Market Garden, Edward Tisdale, Medfield. At the request of the County Club Leader, the appointment of chairmen for the pig and poultry committees was postponed until January. The duties of these officers, chairmen of committees, and town delegates, as emphasized at the meeting, are to act as local representatives of the county leaders, keep the leaders posted as to conditions, and do everything possible to advance the junior club work throughout the county.

Following the organization meeting, the assembly hall was opened to the adults and 150 people watched two sets of motion pictures interesting to club workers. The first was a film showing the making of rubber jar rings, beginning with the getting of rubber from the rubber trees, and going through each step until the rings are made, sold, put on jars, and used in the cold pack method of canning. This film was shown through the courtesy of the Boston Woven Hose and Rubber Company, and was explained by Mr. Condor, their advertising manager.

The other film was of special interest to the Norfolk County boys and girls, since most of the scenes were laid in Norfolk County, and depicted the growing of a pig by a club member from the time it was eight weeks old until it carried off first prize at the county fair.

As another special attraction for the children, all of the State leaders in club work were present and gave short talks. Miss Helen Norris, in charge of canning and home economics work, complemented the girls on their record of seven banner canning clubs. Mr. A. Lawrence Dean, poultry club leader, gave an encouraging survey of the poultry conditions. Mr. V. A. Rice, pig club agent, explained the pig club film and touched on the prospects for another year's successful work. Mr. William Howe, State assistant, and Mr. George L. Farley, State leader, both gave short talks of congratulation and encouragement to the boys and girls. The meeting closed with three rousing cheers for the state leaders and the work they had done to make the club work a real success.

Poultry Contests

With eggs at one dollar a dozen and scarce at that price, the children's interest in poultry is receiving a little better home backing than it did a year ago. This will probably be shown in the poultry keeping and the hatching contests which for Norfolk County begin December 1st and run for one year and for six months respectively. These contests were to have started November 1st, but owing to the influenza epidemic and consequent closing of schools, it did not seem advisable to attempt the necessary organizing in October, so the start was postponed a month and the contests will run one month longer in 1919 than at first intended.

Mr. Dean, the State leader in Poultry Club work, has recently had printed a new Poultry Club primer, and this with a regulation government record book will be supplied all members in both contests.

The poultry keeping contest is the one on which most emphasis will be laid, since this is for those boys and girls who can keep poultry the year round, raise chicks if they care to, and carry on their poultry work as a real business.

The winter laying contest is for those who do not care to, or are so situated that they cannot, carry on the yearly poultry contest work, but keep a few hens, and would like to join a six months' laying contest just for the winter and spring.

Both of the contests will be governed by the usual state club requirements—keeping records, writing a story, and sending in complete records at the end. At least five females must be entered in either contest. Members of the year contest are eligible to compete for the regular state prizes—trip to Washington, a week in summer camp, etc.—as well as the regular four-leaf-clover club pin. Members of the six months' contest are not eligible to compete for the state prizes, but will receive the club pin on the satisfactory completion of the work. Contestants in the year contest may also compete in the short contest and receive the pin on completing all requirements.

Club Notes

Mr. William Howe, Assistant State Leader in Junior Extension work, spent several days in Norfolk County last month in the interests of the poultry work.

What is rabbit meat worth, and what does it cost to produce it? These two questions are being asked quite generally with varying answers. To get accurate information and answer them correctly, experimental rabbit clubs are being started in a few towns of the county, and we are awaiting the outcome with a good deal of interest.

Weymouth Pig Club members wanted to exhibit their pigs. They needed pens to show them in, so when the Fair Association agreed to buy the lumber the boys agreed to build the pens. Saturday, November 9, twenty-eight of them got together and with the assistance of some of their leaders made a good start on the pens they used for the exhibit on the 16th. The day's program took the form of a club rally with a few games and lunch around a big camp fire.

In spite of the long postponement, Stoughton children made an excellent showing at the Fall Fair held in the Town Hall, October 30th. The vegetables shown were of excellent quality, and showed care in selection and preparation.

Weymouth Pig Club Exhibit

Thirty pigs, the property of Weymouth club members, were shown at the Weymouth Pig Club exhibit held at the Weymouth Fair Grounds on Saturday, November 16, under the direction of Miss S. E. B assill, who has charge of the Junior work in the town.

Through the interest of the Massachusetts State Department of Agriculture, prizes were offered for the best Berkshires, Chester Whites, Duro-Jerseys, Yorkshires, and unclassified pigs. There were also classes for fat hogs, brood sows, young sows to be saved for breeding, and a special class for pigs grown by boys and girls under club age. A feature which attracted much attention was a sow with a litter of ten four weeks old pigs.

During the afternoon, a number of the club members took part in a judging contest of market pigs. At this time also, the finishing scenes of a Pig Club moving picture were taken, showing loading and unloading pigs at a fair, pig judging, awarding of prizes, and close-ups of the prize winners.

1918 Canning Club Season

The Canning Club contest closed officially October 15th. From that date to November 1st, time was given for completing records and writing stories. Owing to the closing of schools, many exhibits could not be judged until after November 1st, which has delayed completing the records of the clubs. The epidemic also seriously affected the percentage of members who completed the requirements, lowering it materially. It is a

little disappointing to many of the leaders who have worked very faithfully and expected one hundred per cent. clubs, to fail to procure even fifty per cent. ones at the last moment." We can all feel assured, however, that many secured benefit who did only part of the work, and so perhaps the real purpose of the club work, increased interest and activity along the lines of food preservation, was obtained. Leaders now realize an important point to work for in the organization another year, that is, to make the children realize the importance of sticking to a piece of work to see it through.

Some towns stand high in their records of canning club results, Weymouth leading with five banner clubs out of seven organized. We have two other banner clubs in the county, one at North Walpole, and one at Needham. These towns may well be proud of the leaders and members,

every one of whom has completed the four club requirements.

The following is an approximate summary of the season's results:

Number of towns represented 17

Number of clubs organized 54

Total enrollment 632

Number of members completing requirements 204

Number of quarts reported 12,042½

Total value \$5,411.21

1919 Home Economics Club

Are You to be a Winner This Year?

Now that the Canning Club season is over, club members are eagerly looking ahead to the next contest, the Home Economics Club, which is carried on during February, March, and April. Those who were in the club last year, and especially those fortunate enough to complete the required work and receive a pin, are ambitious to improve their records another year. Those who started in but dropped out are firmly resolved to be "stickers" this year and see it through, for they know there is no room in the state boys' and girls' clubs for a quitter. Then there are those who have heard of the fun at the meetings, have seen sister's new dress proudly worn, or have tasted some of brother's delicious bread, and are going to try their hands at it this year.

The club will be organized within the next two months, and for the benefit of those unfamiliar with this contest, the following requirements

are listed:

Age, 10 to 19.

60 hours of work, including 20 hours of either bread making or garment making, and 40 hours of household tasks.

Report sheet at close of contest.

Exhibit. Story.

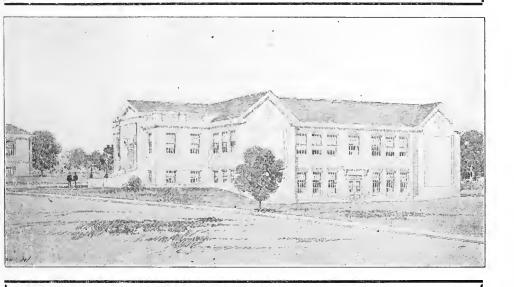
NORFOLK COUNTY AGRICULTURAL AND HOME MAKING BULLETIN

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SCHOOL STAFF

FREDERIC W. KINGMAN	Director
BENJAMIN R. GRAVES	Poultry Husbandry
MALCOLM D. CAMPBELL	Animal Husbandry
JAMES SALTER	Market Gardening
ANDREW N. SCHWAB	Weymouth Dept.
MARY E. SHEPARD	Sec'v and Accountant

FARM BUREAU DEPARTMENT

WILLARD A. MUNSON	County Agricultural Agent
STELLA S. SIMONDS	Home Demonstration Agent
EUNICE H. HOMERAss	t. Home Demonstration Agent
JOHN T. DIZER	.Boys' and Girls' Club Leader



Timely Topics

Union Meeting of Agricultural Associations of Massachusetts

At a recent meeting of representatives of the following fourteen statewide agricultural associations, it was voted to hold a union meeting on February 11, 12, 13, and 14, in Horticultural Hall, Boston:

Massachusetts State Department of Agriculture
Boston Chamber of Commerce, Agricultural Committee
Massachusetts Fruit Growers' Association
Massachusetts Dairymen's Association
Massachusetts Market Gardeners' Association
Boston Market Gardeners' Association
Massachusetts Swine Breeders' Association
Cape Cod Cranberry Association
Massachusetts Beekeepers' Association
Massachusetts Nurserymen's Association
Florists and Gardeners' Association
Boston Poultry Show Association
Massachusetts Milk Inspectors' Association
Massachusetts Corn Show Association

The program of this meeting will be the strongest one that it is possible to assemble, and speakers of state and national reputation are being secured to present the important subjects in which each association is interested. Each association will have a continuous program so that its members will have the same advantage as a separate convention offers, along with the opportunity to attend any session of interest which other associations are holding. The interests of these associations are closely allied, all relating to the farm, and so many cooperating in this way makes possible the securing of the best speakers available.

The exhibits of the different associations a d those of the trades should prove worthy of the attention of every person in any way interested in agriculture.

The program for this meeting is now being prepared and will be available within a short time.

On one evening during the week, probably Wednesday, February 12, a get-together banquet is being planned, at which national and state officials are expected to be present. These men will be invited to speak on immediate agricultural problems. Tickets may be secured by applying to Commissioner of Agriculture Wilfrid Wheeler, or Dr. A. W. Gilbert, Secretary of Agricultural Committee, Boston Chamber of Commerce.

Massachusetts Fruit Growers' Association to Meet February 11 and 12

A program including subjects of timely interest is now being prepared for the annual convention of the Massachusetts Fruit Growers' Association which is to be held in Horticultural Hall, Boston, February 11 and 12. The association is to arrange in the Exhibition Hall an exhibit demonstrating the possibilities the fruit grower has for increasing the consumption of his fruit through manufactured products and advertising. There will also be trade exhibits of interest to the fruit grower.

Every fruit grower who believes in the future of Massachusetts fruit growing should make an effort to attend this meeting. He cannot afford

to be absent.

Programs may be secured as soon as they are ready by addressing A. R. Jenks, Acting Secretary, Waltham, Massachusetts.

Norfolk County Agricultural School

Annual Farm Bureau Meeting Saturday, January 18, 1919 Walpole, Mass.

The fourth year of Farm Bureau work has been completed, and its activities will be reported on January 18, at 10:30 A. M., at the Norfolk County Agricultural School, in Walpole. A cordial invitation is extended to all those who have cooperated to make the work successful, and to all who have been and are interested in extending it in the coming year. The following program has been arranged, which will give an opportunity to hear discussed by speakers of national reputation some of the subjects which are commanding wide attention.

PROGRAM

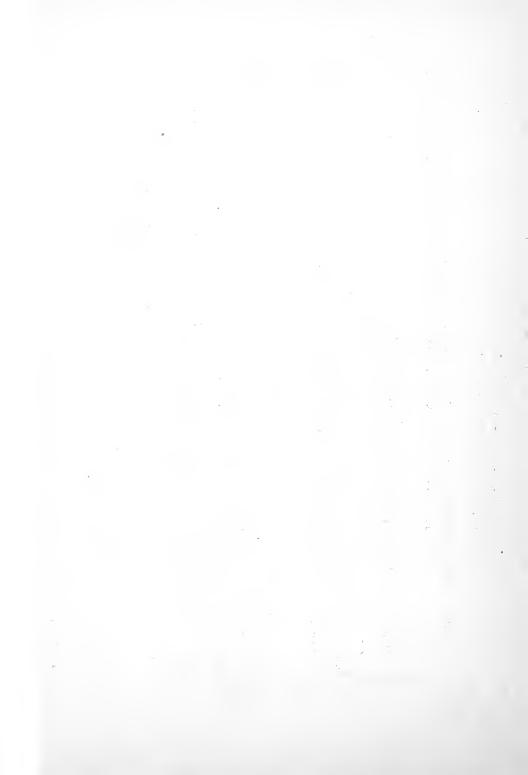
10:30	Reports of Farm Bureau Agents.
11:45	The State Program for 1919. W. D. Hurd, State Director of Extension Service. Miss Laura Comstock, State Home Demonstration Leader (Rural).
12:30	Intermission — Lunch.
1:30	How the Community can get Results. Professor E. L. Morgan, Mass. Agricultural College.
2:00	Experiences in Junior Club Work. By boys and girls themselves.
2:20	What Junior Club Work Means to the Nation. Professor O. H. Benson, U. S. Boys' and Girls' Club Leader, Washington, D. C.
3:00	Some Problems which we are facing. Dr. Thomas N. Carver, Harvard University.

It is seldom that Professor Benson can be secured, as he is in so much demand all over the United States. Anyone who has heard his enthusiastic lectures always wants to hear him again.

Dr. Carver is giving a lecture which brings to the attention of his audiences, as only Dr. Carver can, some of the readjustment problems that are to be solved, the solution of which depends largely upon agricultural developments.

Luncheon will be provided at 75 cents per plate for those who desire it, if notice is sent to Director F. W. Kingman, Walpole, not later than January 16.

F. W. KINGMAN Director



Agricultural Department

Chicken Pox

The weather conditions of the past month have been very favorable for encouraging a chicken pox epidemic. In fact, cases have already presented themselves in this county. Chicken pox (or epithelioma contagiosum) is more common in the southern states than in New England, although many birds have been lost in our northern climate. According to Dr. Raymond Pearl, formerly of the Maine Experiment Station, it is impossible to decide whether this is a distinct disease or a form of roup which affects the skin of the head. At any rate, one seldom appears without the other.

The disease appears as small nodules on the unfeathered parts of the head. They resemble small warts and appear on the comb, beak, wattles, earlobes, or edges of the eyelids. Mosquitoes, cockroaches, gnat flies, and all chicken parasites may be carriers of this disease. It is brought to the flock by the introduction of infected birds or pigeons. The period of incubation is from two to twenty days.

Infected birds should be isolated at once, and if badly infected should be burned at the earliest opportunity. Some good disinfectant should be put in the drinking water. The nodules may be anointed with carbolated vaseline, wheel grease, or a mixture of vaseline and creosote. The birds the products of the garden? If we cannot answer these questions satis may be fed a wet mash to which sulphur at the rate of a teaspoonful to a bird has been added. This treatment should be kept up until the birds have recovered.

Birds which have been infected with chicken pox should not be used for breeding.

Shall We Feed Wet Mash?

The use of wet mash for feeding laying hens is a much discussed question, some people even going so far as to say that it is an old-fashioned way to feed hens. Some feed wet mash in the morning, some at noon, while others prefer to feed it about four o'clock in the afternoon in order that the birds may have full crops at night. Some feed it hot, others cold, while others add various tonics.

The objection to feeding wet mash early in the morning in place of a scratch feed, is that the birds get filled up too quickly and do not get the exercise that they do when they forage for the kernels of grain in the scratch feed. The objection to feeding it at noon is that it makes an extra trip to the poultry house, and oftentimes it is not digested before the evening feed. Wet mash fed at night is digested before morning, leaving the birds' crops empty during the coldest part of the day.

The writer would like to suggest the method used on one of the largest

poultry farms in Maine. The scratch grain was fed between seven thirty and eight in the morning, and a warm crumbly wet mash about ten o'clock. This gave the birds a couple of hours exercise before the feeding of the wet mash, and also gave the birds ample time to digest the wet mash before the afternoon feeding. On this particular plant, the birds were kept in pens of one hundred birds each. Each pen was given about four quarts of the wet mash, and a good dry mash was kept in hoppers before them at all times.

Order Hatching Eggs Now

Since eggs have gone up to a dollar a dozen, there will probably be a big demand for hatching eggs this year. Have you ordered yours? It is cheaper to buy good eggs and expect to pay for them. Don't buy cheap eggs. Don't wait, put your order in now.

Have you selected your breeders yet? If not, it should be done at once.

How about the supply of grit, shell, and charcoal for the hens?

An Experiment in Killing and Picking Hens

In order that every student should know how to kill a hen, an exercise was conducted at the school whereby each student killed a bird. The birds were weighed alive, and then after bleeding and picking. The results were interesting and are tabulated below:

Band No.	Weight at start	Weight after bleeding and picking	Loss in weight
1	3.25 lb.	2.75 lb.	.50 lb.
$\overline{2}$	3.75	3.25	.50
$\bar{3}$	2.75	2.50	.25
4	3,25	2.75	.50
5	3.00	2.75	.25
6	3.50	3.00	.50
7	4.25	4.12	.13
8	5.25	4.50	.75
9	5.00	4.44	.56
Totals	34.00	30.06	3.94

It will be seen from the above figures that the birds lost 3.94 pounds or 11.5 per cent. from bleeding and picking. This is about the usual loss, although the per cent. of loss may vary from 11 to 15 per cent.

The Farm Woodlot

The products of the farm woodlot should be considered among the regular farm crops, and the lot should be given intelligent care and attention so that while yielding the farmer his wood supply it may also increase in value and prove a source of considerable income. crop is usually harvested in the winter when other farm work is light. and at this season let us suggest a more sensible method than is often Instead of cutting down everything large enough for firewood, leave the trees which show by their vigor and general appearance that they will increase in size for several years and may then be classed as Cut out all the scrub and inferior growth, use all that is large enough for firewood, bundle the material suitable for pea brush and cart it out to some location from which it can be sold, and burn the remainder of the tops and brush, selecting a day when it is gently raining or when the ground is covered with snow to avoid danger of spreading fire. general cleaning up serves a twofold purpose: it gives the remaining trees a better opportunity, and it destroys large numbers of injurious insects that spend the winter in underbrush. It will also pay to go carefully over the remaining trees looking for gypsy moth egg clusters—a little creosote applied with a brush will prove effective. If badly infested, probably the cheaper way would be to spray the trees thoroughly after coming into full leaf, using eight to ten pounds of arsenate of lead paste to one hundred gallons of water, or four to five pounds of arsenate of lead powder to one hundred gallons of water.

Painting Is Profitable

Farm wagons, carts, haying implements, and nearly all tools of farming will last longer, thereby paying good interest on the investment, if kept painted. Clean all parts to be painted and apply the paint thoroughly, brushing it into the woodwork; also, the iron or steel parts are protected from rust if kept painted. A good time to do this work is now when there is not so very much to do except chores and cutting and hauling wood.

Gardening

At this time let us review the past season's results: Did we plan our garden right? Did we keep a record of operations? Have we a list of the products of the garden? If we cannot answer these questions satisfactorily, something evidently is wrong. New Year's is the time for resolutions, therefore let us start this year right.

First, we will decide to have a plan of our garden, showing area, kinds and varieties of vegetables, companion and succession cropping, distances to plant, when to plant, amounts of seeds, fungicides and insecticides

needed, etc. Secondly, we will send the order for seeds and garden requisites to the seedsman early. He will appreciate this thoughtfulness, because later in the season he is very busy and unavoidable delays will occur. Besides, it gives us ample time to test the seeds for germination, a thing we should always do. We have a right to ask the seed this question: how much can I depend upon you? The Market Garden Department here at the School will be pleased to test samples of seeds for anyone who would care to have it done.

Fruit

During the dull days of winter, look over the spraying apparatus and attend to any repairs or new parts which may be needed. Lime-sulphur, lead arsenate paste, and nicotine sulphate that will be required the coming season should be on hand. Do not allow these materials to freeze, for freezing is liable to impair their efficiency.

Home Making Department

We Are Not Mustered Out

With the return of peace, America is confronted by a food problemeven harder of solution than that with which we coped in time of war. We have an entirely new world situation in food which necessarily requires an increased export. Millions of people now liberated from Prussian oppression are depending upon us for the food which will keep them from starvation. Bolshevism, which is the worst form of anarchy, is eating its way into civilization in European countries and is threatening the entire world. Hunger among people inevitably breeds anarchy, and the only antidote which we can offer to check the ravages of this movement is a plentiful supply of food.

The food program for the coming year requires us to export from the United States twenty million tons of food material. This is twice as much as we have exported in any previous year. Mr. Hoover has estimated that in spite of all our pains, ten million people will starve this winter before we can get food to them. Knowing this situation, can we

permit an excessive use and waste of food in our homes?

A survey of the food resources has revealed a world shortage in fats and oils. European countries have depended on our supply for a long time; this supply is not sufficient to meet the present demand. A similar condition exists in the case of pork products making necessary a very careful

use of this food.

With food restrictions removed, we are apt to feel that a liberal use of all foods is permissible. We have been dependent upon the Food Administration for specific directions regarding food conservation, but are we not ready to assume the responsibility ourselves and live up to conditions which will make possible the fulfillment of our pledge to export 20,000,000 tons of food? America responded well to the cry for food in the time of war and sent what was needed for victory. This victory must be crowned with peace which can be assured only through the continued support of loval Americans.

Warm Supper Dishes for Cold Winter Evenings

Every housekeeper necessarily spends a large portion of her time in planning three meals a day. The evening meal often presents the biggest problem when supper is served at night, but there are in reality more possibilities and opportunities for originality in this meal than in any other.

Careful planning is requisite, and this means planning ahead and considering the whole day as a unit, not merely heating up at the last moment what has been left from dinner. The constitutions and occupations of all members of the family should be considered, and menus planned

suited to fill the body needs. Digestibility and nourishment are two important items to consider when selecting the dishes which make up the supper meal. Left-overs may be used to advantage at supper time, but these should be attractively camouflaged instead of serving them in their original form. Special pains should be taken to carefully prepare and serve this meal, since breakfast and supper quite directly influence the atmosphere of the home. Ease in preparation is another important essential in selecting the dishes to be served.

A typical supper menu consists of one main hot dish which should contain tissue building and heat and energy giving foods, hot biscuit or bread, and a simple dessert, such as preserves accompanied by cookies or The following simple recipes have been chosen as suitable for the main hot dish for cold winter evenings, since they are nourishing and appetizing, and yet take a minimum of time and energy in preparation.

c. cup

t. teaspoon

T. tablespoon

SCALLOPED CABBAGE

1/4 medium cabbage 2 T. butter substitute

2 T. flour 1 c. milk

½ t. salt speck of pepper

1/2 c. bread crumbs mixed with 1 T. butter substitute melted

Cut cabbage in pieces and cook in boiling salted water for 20 min. Put in buttered baking dish and add sauce made from butter substitute, flour, milk, and seasoning. Lift cabbage with fork that it may be well mixed with Cover with buttered crumbs and bake until crumbs are brown. Grated cheese may be added if desired.

CORN CHOWDER

1 sliced onion 1 can corn 4 c. potatoes cut in ¼ in. slices 4 c. scalded milk 1½ i ch cube of salt perk Salt, pepper

8 common crackers 3 T. butter substitute

Cut pork in small pieces and try out. Add onion and cook five minutes, stirring to prevent burning. Strain fat into a stewpan. Parboil potatoes five minutes in boiling water to cover. Drain and add po-Add two cups boiling water, cook until potatoes are soft. tatoes to fat. Add corn and milk and heat to boiling point. Season with salt and Add butter substitute and crackers split and moistened with pepper. cold milk.

NOTE: Fish chowder may be made by substituting a four pound cod or haddock for the corn. Cook the head, tail, and backbone in two cups water for twenty minutes. Add the cooked liquor, strained, to the potatoes and fat. Add the fish and simmer ten minutes. Then add the milk and continue as in the above recipe.

MOCK CRABS

To 3 T. of nut margarine or vegetable oil, add 1/4 c. cornstarch mixed with 1½ t. salt, ¾ t. mustard, ¼ t. paprika; then add gradually 1½ c. milk, 1 can corn, 1 egg slightly beaten, and 3 t. Worcestershire sauce. Pour into a buttered baking dish, cover with buttered bread crumbs, and bake 30 min, or until the crumbs are brown.

SHEPHERD'S PIE

1 c. cold meat 3 T. fat 1 c. or more mashed potato 3 T. flour

salt and pepper 1 pt. liquid (water or stock)

a few drops onion juice

Cut meat in small pieces, season. Melt fat, add flour, and gradually add liquid, stirring until it boils. Gravy may be used and flour omitted. Add meat and pour in baking dish or casserole. Cover with mashed potato and brown in oven.

ENGLISH MONKEY

Soak 1 c. stale bread crumbs 15 minutes in 1 c. milk. Melt 1 T. butter substitute. Add $\frac{1}{4}$ pound cheese cut in small pieces and when cheese is melted, add soaked crumbs, 1 egg slightly beaten, $\frac{1}{2}$ t. salt, and a few grains of cayenne. Stir, cook 3 minutes and pour over toasted crackers or bread.

Are Your Squashes Keeping?

The problem of saving the large quantities of squash that are rapidly going to waste in this section of the country, is still a most serious one. It is recommended that those who have stored quantities of squash inspect them from time to time, and where decayed or spotted vegetables are found separate them from the sound ones, remove the decayed portions, and use the rest. In case there is an excess that should be used immediately, the Government has urged canning and drying as the best means of preservation. Sugar may be added in the canning if the squash is desired as a pie mixture, but for table use no sugar is used.

The following brief review of the directions for drying and canning may be helpful to some housewives to whom the preservation season seems a

thing of the past.

DRIED SQUASH

Select sound portions. Pare and cut into about ½ inch strips, removing seeds and stringy portion. Blanch three minutes. Remove surface moisture and dry slowly at a moderate temperature. When thoroughly dry, store in moisture proof receptacles.

CANNED SQUASH

Cut, pare, and remove stringy centre. Slice into small pieces. Blanch three minutes. Pack into jars and sterilize 120 minutes in hot water bath.

Farmers' Bulletin No. 913, entitled "Killing Hogs and Curing Pork," will be of value to housewives who are fortunate enough to have a quantity of pork products to preserve for the winter's use. This bulletin gives information on brining, salting, smoking, and pickling pork, rendering lard, making sausage, and head cheese. The Home Demonstration Agent has a limited supply of these bulletins and will be glad to send you one.

Preventive Medicine

Many people found to their sorrow that during the extreme cold weather last winter the temperature in their cellars where fruit and vegetables were stored dropped below the freezing point. This resulted in an enormous waste of material, and hundreds of bushels of frozen potatoes and quantities of fruit and vegetables canned in glass were thrown away because of this carelessness. Our lesson was sufficiently severe so that we should be fore-armed this year, and allow no waste from freezing. A thermometer hung in the vegetable cellar is an excellent indicator and safeguard against this difficulty. Watch the thermometer during cold weather and when it drops to 35 degrees F, devise some means for maintaining that temperature. An ounce of prevention is worth a pound of cure.

Textile Courses Are Organized

Purchasing clothing material is a present day problem of the house-wife as she must bear in mind the great necessity for saving material to meet the added demands on the depleted supply, and purchasing so economically that the family bank account will not suffer through her carelessness. Only through the knowledge of fundamental principles governing the selection of material and experience gained from continued practice can one become an intelligent buyer.

It has been made possible by the State Extension Service to have Mrs. Mary Woolman give two courses on textiles in Norfolk County. The course of five lectures gives information on the subjects of textile industry, the economic situation of clothing materials, the relation of clothing to health, and hints for intelligent shopping. Research reading relative to these subjects is encouraged for the women taking this course.

The Home Economics Department of the Sharon Woman's Club has been glad to make arrangements for having this series of lectures given to the women in this department for their winter's program of work. The second series is being given to an interested group of women in Milton. One lecture in each series has already been given, and much interest and anticipation in the remainder of the course was expressed by the various members.

Boys' and Girls' Club Department

Training School for Home Economics Club Leaders

Many teachers or housewives who would make excellent leaders for Home Economics clubs hesitate to undertake the leadership because of their inadequate knowledge of the subjects involved. They feel that to give a bread making demonstration or a patching and darning lesson is far beyond them, and they are not fitted to be critics of such work done by the children.

For the benefit of those who have consented to be leaders for the coming contest and yet desire further training along these lines, a one-day training school is to be held on Saturday, January 4, at one end of the county, and one on the following Saturday, January 11, at the other end of the county. Leaders from surrounding towns will be invited to a central meeting place and be given an actual demonstration in bread making and sewing. Judging of patches, darns, garments, and loaves of bread will be taken up, and a round table discussion of the general purpose of club work and problems connected with leadership will end the day's program.

The Home Demonstration Agent, her assistant, and Miss Norris, Assistant State Leader in this line of work, are planning to be present and conduct the program. It is believed that this will be most helpful to the local leaders, and all are urged to avail themselves of the opportunity of attending the school.

The Story of My Pig

By a Norfolk County Club Member

Last spring the Government was asking everybody to have a garden and raise a pig. I did both, but I will only tell about my pig here. Some of the boys around had belonged last year and told me of their Pig Club experiences, so I decided to join.

When it came time to get the pig, Mr. Dizer, the County Leader, told me he had a lot of them for the boys and girls of the county. He had a few in his auto and he told me to pick out one. I picked out the one I thought was the best one, and put him in the pen I had built for him. I built a movable pen with a shelter at one end. It was a pretty good pen but he got out twice just the same.

When it came time to feed him I didn't have a trough. I built two right off, one for food and the other for water.

My pig was a black pig. For a time everybody had a different name for him, but it was finally decided to call him "Rastus" on account of his

color. I planted rape for green feed. The seed was given to me by the Club Leader. The field where his pen was had a lot of clover in it, and I moved his pen about twice a week so he had plenty of green feed. We had scales to weigh him with at first, but he soon outgrew the scales. They were only twenty-five pound scales. The last weight of December 1st, I had some of the neighbors who knew more about pigs than I did estimate his weight, and then I found the average of their estimates, which was 260 pounds.

I fed the pig three times a day. I gave him pig chow and middlings. When he was little I gave him skim milk. We have two cows, so I got it for nothing. I began feeding corn about the middle of September. I

raised the corn myself.

I had hopes of exhibiting him in a fair, but the influenza stopped it. But I hope to have better luck next year, because I'm going to be a Pig Club member next year too. I have learned a little about pigs this year, and I hope to learn more. I found that a pig needs clean food, plenty of clean water, and clean comfortable quarters as much as any animal.

The literature sent out to club members has helped me, too. Mr. Dizer showed me several things I did not know before, and so did the doctor that inoculated the pig. I'm going to have a pair of pigs next

year if I can, and double my efforts to be a good club member.

Junior Extension Schools

Junior Extension Schools—the bringing together of state extension workers for a specialized campaign in a single town—are-being planned for the development of junior club work in Norfolk County. Last year several of these so-called schools were tried with a great deal of success. This year more time will be devoted to them. People who think club work in their towns would be benefited by visits from the State Junior Extension leaders, can get definite information about these schools by writing the County Club Leader.





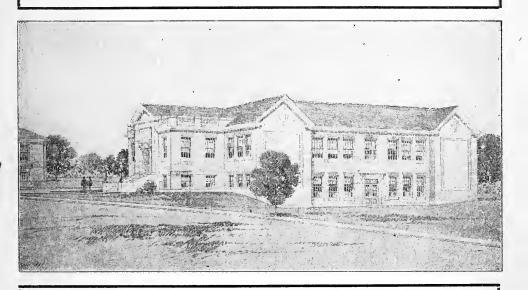
NORFOLK COUNTY AGRICULTURAL AND HOME MAKING BULLETIN

VOL. II

FEBRUARY, 1919

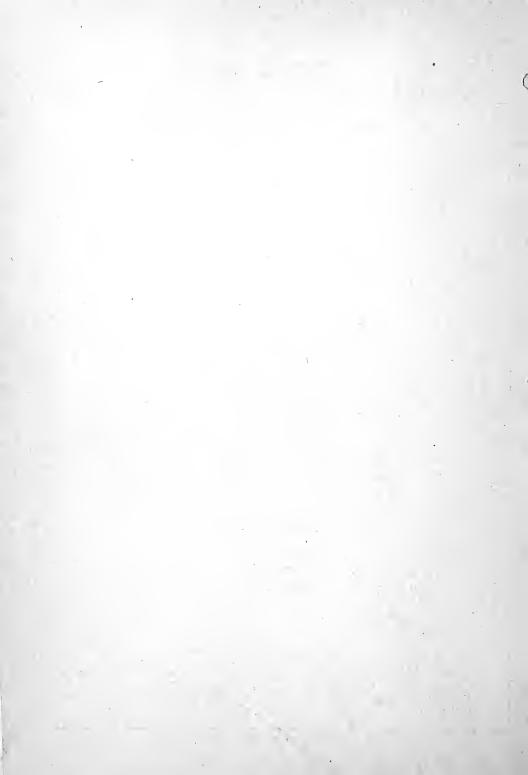
No. 14

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PUBLISHED BY THE NORFOLK COUNTY AGRICULTURAL SCHOOL, WALPOLE, MASS.

SCHOOL STAFF	
FREDERIC W. KINGMANDi	rector
BENJAMIN R. GRAVESPoultry Husb	andry
MALCOLM D. CAMPBELLAnimal Husb	andry
JAMES SALTERMarket Gard	lening
ANDREW N. SCHWABWeymouth	Dept.
MARY E. SHEPARDSec'y and Accord	ıntant
FARM BUREAU DEPARTMENT	
FREDERIC W. KINGMAN	



Timely Topics

Annual Farm Bureau Meering

The annual Farm Bureau meeting was held at the Norfolk County Agricultural School, Walpole, Saturday, January 18. Seventy-five people were in attendance. The morning session was devoted to reports from the county agents and addresses from Director W. D. Hurd of the State Extension Service, and Miss Laura A. Comstock, State Leader for Women's Work. In the afternoon Prof. E. L. Morgan of the Agricultural College spoke on "How the Community Can Get Results;" Prof. O. H. Benson, U. S. Boys' and Girls' Leader on "What Junior Club Work Means to the Nation," and Prof. Thos. N. Carver of Harvard University, on "Some Poblems Which We Are Facing." Perhaps the most interesting features of the afternoon's program were the reports made by some of the prize winners of their experiences in club work. Lack of space compels us to give only the reports of the Farm Bureau Agents in this issue.

Union Meeting of the Agricultural Organizations of Massachueetts. Horticultural Hall, Boston, February 11, 12, 13, 14, 1919

Since our last issue we learn that the plans of this meeting have progressed nearly to completion.

The days set for the different association meetings are as follows, according to the advance program which also gives the names of the speakers:

MONDAY, February 10.

Horticultural Hall open for setting up exhibits.

TUESDAY, February 11.

Meetings of:

Mass. Fruit Growers' Association. Federated Mass. Beekeepers' Association. Mass. State Department of Agriculture.

WEDNESDAY, February 12

Meetings of

Mass. Fruit Growers' Association.

Mass. State Vegetable Growers' Association.

Boston Market Gardeners' Association.

Mass. Milk Inspectors' Association.

Get-together-Banquet, Ford Hall 6:30 P. M. \$1.75 per plate.

THURSDAY, February 13

Meetings of

Mass. Dairymen's Association.
Boston Gardeners' and Florists' Club.
Mass. Nurserymen's Association.
Mass. Swine Breeders' Association.
New England Corn Exposition, Inc.
Mass. State Department of Agriculture.

FRIDAY, February 14

Meetings of

Woman's National Farm and Garden Association, N. E. Branch. Boston Poultry Association. Mass, State Department of Agriculture.

The trade exhibits and those of the several associations which are to fill the large and small exhibition halls are arranged for, and they will

prove to be one of the most interesting features of the meeting.

Final programs will be ready a week previous to February 11, and these will give the hour and day of each subject as it is scheduled for

Everyone engaged in, or interested in any branch of agriculture will find something on the program for his benefit.

Programs may be procured by writing your Farm Bureau offices or the State Board of Agriculture.

FINANCES AND ANNUAL REPORTS.

We present in this issue of the Bulletin the financial statement for 1918, of the Norfolk County Agricultural School, covering all phases of the school's work.

We would call attention here to a fact that is often overlooked, namely; that the school has two main divisions or types of work.

- 1. The Instruction and Training of the students in the school and at home.
- 2. The Work in the County with men and women, boys and girls, carried on by the Farm Bureau Agents, assisted at times by the instructors.

In the conduct of the farming operations at the school, the advice of the county agricultural agent is frequently sought. We aim to make the school's farm practice such as will harmonize with the recommendations of the agricultural agent to men engaged in farming.

The expense the past year for maintenance of the school proper, including the farm but not the Weymouth Department, was \$16,106.81, of the Farm Bureau was \$15111.02. Construction and equipment charges amounted to \$9094.11. The cost of the Weymouth Department was \$2267.29. When estimating per capita costs for students, one should not include Farm Bureau expenditures.

In all but three counties of the State, Farm Bureaus are maintained as separate organizations. The cost of maintaining these organizations ranged, in 1918, from \$8000 in Barnstable County to \$60,000 or more in Hampden County.

You are urged to read carefully the reports of the Farm Bureau Agents covering the work for the year ending Dec. 1, 1918. We submit these reports in the confident belief that most effective service has been rendered and that full value has been received for the money expended. We invite suggestions as to work that should be undertaken the coming year.

FINANCIAL STATEMENT—NORFOLK COUNTY AGRICULTURAL SCHOOL December 31, 1918.

	RECEIPT	3		
Appropriation from County Interest Smith-Hughes Funds Tuition			34,000.00 31.91 236.05 459.35	
Farm Bureau Department U. S. D. A. and M. A. C. Mass. Public Safety Commitmed Miscellaneous	ittee	2988.33 3197.12 160.16	6345.61	
Farm Receipts Miscellaneous School Receipts			1638.71 444.76	\$43,156.39
	PAYMENT	s		
School at Walpole Administration Instruction Farm Operation and Upkeep Construction		1527.88 6962.42 4693.82 2922.69		
Poultry Instr. House Grading Miscellaneous Equipment	4970.58 1380.44 1242.67	7593.69 1500.42	25,200.92	
Farm Bureau Department Agricultural Section Home Making Section Club Section General		5184.69 4278.05 3599.29 2048.99	15,111.02	
Agricultural Department at We	2267.29			
Total Payments Cash on Hand	r.		42,579.23 577.16	\$4 3,156.39

Farm Bureau Department.

Emergency Production Campaign

Report of County Agricultural Agent

DECEMBER 1, 1917—DECEMBER 1, 1918

In summing up the activities of the County Agricultural Agent for the past year, it is presented by these statistics and the explanatory statements which follow.

Days in Field	$215\frac{1}{2}$
Days in Office	861/2
Office Calls	25
Letters written	894
Project Work	
Farm Visits made	427
Demonstrations visited	153
Meetings at demonstrations	15
Attendance	932
Meetings Held in Relation to Projects	
Number	. 61
Attendance	4384
Miscellaneous Work	
Meetings held	
Number	1
Attendance	150
STATE MEETING	

On January 31, the State Committee on Food Production held a meeting at which plans were presented and explained by its members for increasing the food production of Massachusetts.

County Meeting

In order to carry this plan to every town and community, a county food production conference was arranged to which the citizens of Norfolk County were invited, and twenty-five out of the twenty-eight towns were represented. This meeting was led by the County Food Administrator, who explained the duties of his office and introduced representatives of the state committee. These representatives outlined the work which was necessary if Massachusetts was to do its share in raising food during the season of 1918, and they gave many reasons why every person should use his or her efforts to do something toward increasing the food supply by producing and conserving.

Local Meetings

Cooperating with the County Food Administrator, local conferences were arranged with the town food production committees. Representatives of all local organizations were invited to these meetings, in order that the plans developed at the conference might be presented to each organization at its next meeting. The plan for increasing production was outlined in detail after the County Food Administrator had explained the duties of his office. In several of the towns, public meetings were held by the local com-

mittees, at which representatives of the state, county, and town organizations spoke, emphasizing the necessity for production and conservation.

Labor on the Farms

If production on the farms was to be increased, it was evident that the labor supply needed recruiting. An attempt was made to do this in the county by cooperating with the state committee, which had enrolled labor for ship building and munition plants. Many men were enrolled who could work on farms for short and long periods, but when they were needed it was an impossible task to get them to the farms. The most satisfactory results were secured through the employment of high school boys, and next through the women's farm labor unit which was established in Westwood by the New England Branch of the Women's National Farm and Garden Association.

State Tractor Units

Early in the spring, the farmers of Norfolk County were informed of the proposed bill to locate state-owned tractors and farm machiney units in the agricultural sections of the state, and again as soon as the bill was signed by the Governor. The farmers of Medway, Franklin and Norwood found enough land that owners wanted fitted, above what they could prepare with their own equipment, to warrant the State Board of Agriculture in placing a tractor unit in each of these towns.

Nitrate of Soda Ordered

Early in February, eighteen tons of nitrate of soda was ordered from the Federal Government by twenty-three farmers of the county. Although the nitrate was slow in being delivered, it arrived with but two exceptions in time to be used to the advantage of the crops.

Live Stock

The keeping of swine has increased to some extent, as was evidenced by the prices which pigs brought. Poultry has been reduced on account of high feed costs; the hatching of chickens was curtailed to such an extent that many flocks are now composed largely of yearling birds and considerably reduced in numbers. Most of the dairy herds have been kept intact. A few herds have been sold outright, and a few have been reduced in number. The shortage and high cost of labor has caused these sales and reductions.

Garden Courses and Supervisors

In order that those who desired might receive information, garden courses were given in several towns on the plan developed in the spring of 1917. As the season advanced and interest in the home garden developed, thirteen town food production committees appointed adult garden supervisors seven of whom were paid. Although the garden acreage was not greatly increased this year, the production increased sixty percent, due to better growing conditions and to the previous experience of gardeners.

Community Gardens

In a few towns the community garden has been the means of giving those without land a place on which to grow vegetables for home use. Their success was well demonstrated in Canton, Stoughton, Milton, Norwood, and Walpole.

Junior Club Leader Continues

The county leader of girls' and boys' clubs was again financially supported by the State Public Safety Committee, and the development of the club work has been followed up throughout the county wherever local interest has warranted. The increase in Home Economics and Canning club work has made it necessary to employ an assistant county club leader.

Harvest Fairs

During the fall nineteen towns planned fall harvest fairs. Of this number eleven held the fairs, the remainder cancelling them on account of the influenza epidemic.

Investigations for District and Local Boards of War Department

At the request of the district and local boards, claims by registrants for deferred classification on agricultural grounds have been investigated and the facts gathered, tabulated, and forwarded to the boards in the shortest possible time.

Community Markets

There were ten community markets in Norfolk County this year, and the Emergency District Marketing Agent of the United States Department of Agriculture was given all possible cooperation in advertising to both consumers and growers the opportunities offered by them.

ORCHARD MANAGEMENT

In the orchards which are demonstrating the several phases of good management and the best methods of starting and growing young orchards, there are 13000 trees, covering 243 acres of land. The greater percentage of these trees are from one to ten years old, and their thrifty condition is bringing to the attention of those who are growing fruit trees, and to any who contemplate setting out new orchards, the results of thorough management in planting, pruning, spraying, fertilization, and the control of borers and rodents.

The method proving most satisfactory for planting young trees is to have them arrive from the nursery in time to set out just as soon as the holes can be dug. In doing this it has been demonstrated in an orchard of 2800 trees, half being planted as above described, and half later in the spring, that the early planted ones come into bearing one year earlier. The pruning methods that are being demonstrated are what may be called moderate, the cross and interfering branches being removed each year, and the remaining ones thinned where thick, enough to allow free circulation of air and entrance of sunlight. Heading back of the branches before bearing begins is being practiced only when it is necessary to shape the tree. In nearly all orchards two sprays are given a year, the dormant spray with lime sulphur, and the foliage or blossom spray of either arsenate of lead and lime sulphur or arsenate of lead and bordeaux mixture. The fertilization of the trees has been with any material (stable manure, hen manure, commercial fertilizer, or chemicals), amounts being applied to secure a growth of eighteen or twenty inches per year. The growth has also been influenced by the amount of cultivation; some of the growers cultivate intensively, others partially, and still others use the sod method.

A four acre lot of woodland which has recently been cut off was set to fruit trees in the spring of 1918, the above methods of management being applied, with the exception that the cultivation was done by keeping a space of three feet about each tree open and hoed by hand at least once a week from the time of setting until August 1st. This orchard has made an average growth of eighteen inches. The results obtained with this orchard will demonstrate the possibilities of using certain portions of cut over lands for orchard purposes.

The renovation of old orchards which was begun three years ago is being continued, and the trees in these orchards are improving each succeeding year in yield and quality.

SOILS AND CROPS

For three years the use of lime has been increasing until its value is now realized by the majority of farmers. In eighteen towns, lime is being used extensively, and in six communities it is being purchased in carload lots by individual farmers.

Much improvement can still be made by the use of more clover in the

rotation, and by a shorter crop rotation system.

Alfalfa received a severe set-back by being severely injured during the winter of 1917-18, and many of those who were growing this crop have not tried to establish it again, partly due to the fact that the fields were

used for emergency crops.

During the past season more grain crops have been grown in the county (wheat production increased 85 percent) and the results obtained with wheat, oats, rye, and corn are most satisfactory. The benefits of early planting of wheat and cats were realized by many, with the result that when a representative from the Bureau of Plant Industry inspected the grain fields for diseases, he reported that the early planting had allowed the crops to come near maturity before the diseases appeared. This condition of the crops put them out of danger of rusts. The 4 percent oat smut damage which the specialist found can be reduced by the formaldehyde treatment of the seed, and he claimed it would pay a profit on the expense.

Corn has previously been grown mostly for silage, but during the past season, the acreage of flint corn was increased 50 percent. The condition of seed corn made testing necessary for the largest and most profitable yields. Corn seed was tested by the largest growers in the twelve towns

where it is grown mostly.

Owing to the price of fertilizers, the amounts used were somewhat reduced, but manure has been more efficiently used and cultural methods

more thoroughly practiced.

The potato acreage has remained about the same as that of the previous year. During the growing season more thorough spraying for diseases and insects was practiced, but the results obtained for the time and money expended in combatting plant lice on potato vines could not be called sat-Growers with large acreages reported that very small results were secured from the efforts to check the bad infestation of lice, although spraying was done with traction spray outfits at short intervals. the materials used for killing lice came in contact with them they died, but the difficulty was to get the spray to reach them on the under side of the leaves.

During the times when diseases and insects were prevalent, specialists from the Massachusetts Agricultural College were conferred with and taken to representative fields for examination and recommendations. Corn fields were examined for the European borer but none were found. The specialist on potato diseases found several bad cases of the phoma stem wilt, and recommended the use of Maine seed from fields that had been inspected and

found free from this disease.

POULTRY

Although the Farm Bureau has been established in Norfolk County nearly four years, very little has been done that would be of benefit to the poultryman. Last year an investigation of poultry conditions was made. and the results were published and put in the hands of those interested.

This year the poultry investigators of the eastern part of the United States met toegether and worked out their findings in such form that it was possible for them to agree and go into the field with facts which, if put into practice, are known to be of value. In order to bring these facts to our poultrymen, several poultry culling demonstations at centrally located poultry yards were arranged during the week of August 12. Eleven local

meetings were held and one county meeting, at which specialists from the Massachusetts Agricultural College showed the methods of judging fowls for egg production. The total attendance at the eleven demonstrations was 192 poultrymen and incrested people. Ten days later at the county meeting 175 were present. At this meeting, 49 responded to a request for the number of birds kept last winter and the number they intended to keep the coming winter. The 49 reporting kept 14075 last season and are planning to house 16078 this fall, making an increase of 14-1/5 percent.

Late in October, the Extension specialist of the Massachusetts Agriculural College presented several projects which had been outlined for improving the poultry business. The project which seems to show the best possibilities is one on economic poultry management. This has been presented to several poultrymen, two of whom have denoted a desire to adopt and

conduct it at their plants.

The poultry business of the county can be advanced just so fast as those interested make known their desires to have projects outlined and to cooperate in carrying them out.

FARM LOAN ASSOCIATION

The Norfolk Farm Loan Association of Walpole has during the past year received its charter from the Federal Farm Loan Board. Although much publicity has been given the Farm Land Bank, there are many who do not understand its purpose and the accommodations it can give. Many inquiries have been answered. In a number of cases conferences have been held with prospective borrowers, in order that the method of securing loans and the amount that can be borrowed might be understood before an expense was incurred. The following points have been explained and emphasized: the length of time it takes to secure a loan, the amount of money which can be borrowed, the interest rate, the amortization of the principle, the length of time the mortgage can run, and the fact that all money is loaned on first mortgage.

MISCELLANEOUS

Considerable work continues to come under the head of miscellaneous activities, such as attending conferences, securing and forwarding information in answer to requests from various agicultural agencies and those interested in agricultural development, consultations with prospective farm purchasers, judging at fairs, judging community gardens, boys' and girls' gardens, and pigs, locating live stock for those who have made requests, advertising stock and farm products that are offered for sale, and doing all possible to locate and direct labor to the farms.

FUTURE WORK

The duties of the past year have been so varied on account of the emergency program necessitated by the war, that in many cases the regular Farm Bureau work started before we entered the world conflict has been neglected as special problems. But on reviewing the season's work it will be found evident that the emergency program simply called for the speeding up of what many had found necessary under normal conditions to make agriculture profitable and attractive, and to keep pace with the demands of the rapidly increasing population.

These facts and the new responsibilities placed upon the Farm Bureau during the year have brought very forcibly to the attention of those who accept them, the necessity for a more thorough organization, reaching out into every community in the county, in order that each may have an opportunity to request and receive the most helpful type of service which the United States Department of Agriculture, the Massachusets Agricultural Col-

lege, and the State Board of Education can give. It is hoped that most of the communities of the county will be presented with a plan during the next year, through which every agricultural, home, and child interest can be more thoroughly developed, and the Farm Bureau work already started extended more efficiently.

W. A. MUNSON.

Annual Report of Home Making Department

In order to prevent too great a dissipation of energy and effort, it seems advisable for county workers to take a survey each year of the needs of the community, decide upon projects which they can assist in developing and adhere as far as possible to this program. Six projects have been emphasized by the Home Making Department in Norfolk County during the past year, and the following report of work done between the dates of December 1917, and December 1918 is in project form.

Organization

ADVISORY BOARD AND HOME ECONOMICS COUNCIL

During the past year an organization has been effected to assist the Home Demonstration Agent in furthering her work in the field. At least one woman in each town has been appointed to serve as an Advisory Board member of the Farm Bureau, thus forming a connecting link between the Farm Bureau and the town. Through the interest of these members the definite needs of the town have been brought to the attention of the Home Demonstration Agent and in turn, the possibilities of assistance from the Farm Bureau have been demonstrated to the local people. Nine women were elected from the Woman's Advisory Board to act as a working body. This committee was called the Home Economics Council and has held monthly or bi-monthly meetings with the Home Demonstration Agent to review work done and to advise her regarding future work.

CONSTITUTION FOR HOME MAKING DEPARTMENT

A sub-committee composed of two council members and the Home Demonstration Agent was appointed by the Home Economics Council to form a Constitution and By-laws for the Home Making Department of the Farm Bueau. This constitution has been presented and accepted by the Advisory Board.

WOMEN'S FOOD CONSERVATION COMMITTEES

With the development of the war and the increasing seriousness of the food situation, the State Food Administration advocated that each town be represented by a Woman's Food Conservation Committee. Realizing that the Farm Bureau is an organ of the people, the State committee asked the assistance of the county office in organizing town committees and as a result all towns in Norfolk County were represented with Food Conservation Chairmen.

ASSISTANT HOME DEMONSTRATION AGENT APPOINTED

The increase in work along Home Economic lines made it necessary for the Home Demonstration Agent to have an assistant in order that the work might be more completely handled. In July, 1918 Miss Eunice Homer was appointed to this position and has assisted the Home Demonstration Agent with the women's and girl's work. This position terminated December 1918.

Owing to the unusual conditions brought about by the war, much time and effort have been devoted during the past year to the food problem. Activities along this line can be classified under two main headings, namely: Food Conservation and Food Preservation.

Food Conservation

LOCAL LEADERS IN FOOD CONSERVATION

It seemed essential to devise some plan for carrying food conservation work into the individual homes. In order to make this work more far-reaching, a plan was suggested to the conservation committees in several towns, whereby a local person should be appointed to act as a leader in food conservation work. Nine towns chose leaders, and a series of eight lessons was given these women in war cookery demonstration work. The work done by these trained leaders varied in the different towns, depending upon local conditions. In all towns the leaders were active in distributing literature, arranging window, store, or library exhibits, and serving as an information bureau. Many of the leaders gave talks and demonstrations to neighborhood groups of women in their respective towns. Reports from the local leaders show that 198 demonstrations on war cookery have been given, reaching 3665 people.

HOME MAKERS' STUDY CLUBS

The value of systematic study in home making subjects has already been demonstrated by groups organized for this purpose. Three study clubs were organized in this county during the past year, the clubs meeting biweekly for ten meetings. The leader for each meeting was chosen from the membership with the exception of three meetings, where the Home Demonstration Agent led or furnished a leader. A detailed outline of the lessons with appropriate references where information relative to the subjects might be obtained was provided for each lesson.

EXTENSION SCHOOL

In coopeation with the Massachusetts Agricultural College, a two-day extension school was held in Holbrook last February. The program for this school was given by a member of the Extension Staff and the county Home Demonstration Agent, and included eight talks and demonstrations on the subject of foods. There was an average attendance of fifty-six women, two thirds of them attending every session. As a result of the interest aroused by this school, other demonstrations were given during the spring and summer, two classes in clothing conservation were formed, and a committee appointed to investigate the possibilities of introducing a warm school lunch. A request has been made for another school this year, thus proving the value of the work.

COUNTY FOOD SUPPLY MEETING

With the increasing seriousness of the food situation, the State committee on food production felt that steps should be taken to encourage greater food production and conservation during the spring and the summer of 1919. The Norfolk County Food supply meeting was held February 9. in Walpole. Sectional meetings on food production and food conservation

were held in the morning, and a joint meeting was held in the afternoon. A suggestive outline for a two months' conservation program was presented to the women at this time. In spite of a very stormy day, eighty-five women were present.

CONFERENCES WITH LOCAL FOOD PRODUCTION AND CONSERVATION COMMITTEES

As an outgrowth of the county food supply meeting, conferences were arranged in ten towns in the county with the town food production and conservation committees, the county food director, and the county agricultural and home demonstration agents. Suggestive plans for spring and summer work were presented, with the intention of stimulating greater food production, conservation, and preservation. As a result of these meetings, mass meetings were held in the towns, where the food situation was presented to the people and a plea made for greater individual conservation.

DEMONSTRATIONS AND EXHIBITS

Women's Food Conservation Committees, librarians, and school nurses were active in arranging for demonstrations and exhibits which would give people information regarding the substitution of available foods for the accustomed foods which were eliminated from our diets.

FOOD CENTRES

Three towns in the county established feed centres as a means of spreading information regarding food conservation. In two centres paid teachers were in charge, and the kitchens were fitted up with individual equipment where classes of ten to fifteen women received practical courses daily.

One food centre established by a trained local conservation leader has had weekly demonstrations throughout the winter, with an average attendance of thirty-five. Much literature has been distributed and a real interest awakened in the town. Plans are under way for continuing work in this centre, and a program of work for the winter has been arranged.

FOOD SURVEYS

In January, 1918, the Federal Food Administration asked the assistance of the Farm Bureau office in taking a food survey which would help them in determining how nearly self-sufficing the United States was at that time, and aid them in their future plans for food production. Through the co-operation of the local people, we were able to have eighty-five reports filled out, which was the allotment for Norfolk County.

LIBERTY BREAD SHOP

Feeling that the wheat situation was the hardest problem which the housewives had to cope with, the Women's Food Conservation Committee in Quincy opened a Liberty Bread Shop, June 1st on the grounds where the very successful public market was held two days a week. A paid worker was placed in charge of the kitchen, and wheatless breads, cakes, and mnffins were sold throughout the summer. Weekly demonstrations were held during the season. The Bread Shop closed when the market disbanded in the late fall. The committees succeeded in making the enterprise self-supporting and feel that much educational work has been accomplished.

Food Preservation

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COUNTY CONFERENCE ON FOOD PRESERVATION

in In order that each town should feel the need of exerting every influence to increase the preservation of food, a county conference on food peservation was held in Walpole on June 7. All county people interested in food preservation were invited to this meeting to gain suggestions from the various State leaders regarding summer preservation work.

TWO DAY TRAINING SCHOOLS FOR ADULT PRESERVATION LEADERS

In oder that preservation information might be available to many people, an effort was made to find women who would act as local leaders in dispersing preservation information among women in the different section of the towns. Two two-day schools for leaders were conducted by the Home Demonstration Agent in cooperation with the Massachusetts Agricultural College in the early part of the summer. Thirty-two leaders attended the schools, representing nine towns. Conferences were held with these leaders throughout the summer to keep in touch with work done, and to offer suggestions for new work. Reports from local preservation leaders indicate that they were active in various ways in giving canning and drying demonstrations, giving preservation information in answer to telephone calls, assisting in community canning kitchens, leading junior canning clubs, and distributing literature. Reports from the local leaders show that 32 demonstrations on food preservation have been given with an attendance of 640 people.

COMMUNITY CANNING KITCHENS

Community canning kitchens were advocated throughout the county for towns where there was surplus material that would otherwise go to waste and where a stimulus would be given to food preservation by organizing a kitchen of this kind. Nine community kitchens were in operation for at least two months during the summer, and a summary of the reports received shows that 37,515 jars of fruits and vegetables and 133 jars of jam have been canned in these kitchens.

DEMONSTRATIONS IN FOOD PRESERVATION

Information regarding food preservation was given in several towns during the summer at monthly demonstrations. This series included demonstrations on canning, drying, salting, fruit butters, and marmalades with less sugar. Isolated demonstrations on food preservation were given in other towns.

COUNTY MARKET BUREAU

Frequent requests have come for information regarding the purchase of fruits and vegetables in quantity for preservation work. These inquiries have led to the establishment of a county market information bureau. The names of producers of all fruits and vegetables in quantities in and around Norfolk County have been assembled and filed at the Norfolk County Farm Bureau office. Owing to the fact that the bureau was not completed until late summer, it was not used extensively this year, but with the publicity which it will be given the coming season, it will doubtless be of value to the people.

FALL EXHIBITS

Fall exhibits of preservation work done by adults and juniors have been urged in all towns. These exhibits have a distinctly educational value, as a high standard of work is usually exhibited, and through competition the standard of work is raised in the community. Fall exhibits were planned in seventeen towns, but owing to the epidemic of influenza, eight exhibits were cancelled. The fall fairs which were visited by the Home Demonstration Agent this year showed an improvement in the preservation work, compared with that exhibited last year.

Clothing Conservation

Realizing that the need for clothing conservation is quite as vital as food conservation, five classes were organized for a course in the renovation and remodelling of clothing. There were fifteen women enrolled in each class, meeting once a week for nine lessons. The course was given by a clothing specialist and much help was given to members of the class in renovating material which was not worn out. The success of this work has made it possible to organize more clothing conservation classes this coming year.

Household Management

Because of the vital need for work along food and clothing conservation lines, little time has been devoted to household management. At the request of local organizations, three illustrated talks have been given on labor saving appliances in the home, and one talk regarding methods of keeping the family budget or expense account.

Junior Club Work

HOME ECONOMICS CLUBS

Twenty-one Home Economics Clubs with local adult leaders were organized in fifteen towns. Work started February 1st with 615 boys and girls enrolled for work in bread making, sewing and household tasks. Each club met twice a month under the supervision of a local leader, and was visited where possible once a month by the Home Demonstration Agent or a temporary assistant employed for the work. At the close of the contest, May 1, a local exhibit was held to show the work accomplished. Exhibits were judged by the Home Demonstration Agent and state and local prizes were awarded for the best work. 257 members completed all State requirements for Home Economics clubs.

TWO TRAINING SCHOOLS FOR JUNIOR CANNING CLUB LEADERS

Previous experience with junior clubs has indicated that better club work can be accomplished if the local leaders of the clubs have a better understanding of club work. To accomplish this end, two training schools for junior canning club leaders were held in the early summer. Fourteen leaders were pesent at each school, and it was a consensus of opinion that the schools accomplished the purpose for which they had been planned.

CANNING CLUBS

During the early summer 52 canning clubs were organized in eighteen towns in the county. Club meetings were held fortnightly as a rule, and a canning lesson, business meeting, and recreation period had distinct parts in the meetings. Each club was visited once a month where possible by the Assistant Home Demonstration Agent, and at these meetings preservation demonstrations and helpful suggestions were given with the aim of raising the standard of club work.

Statistical Summary

The following statistical summary gives briefly the results of the work and the division of the time of the Home Demonstration Agent from December 1, 1917 to December 1, 1918:

Days in Office	1921/2
Days in Field	$173\frac{4}{4}$
Letters Written	
Personal	983
Circular	63
Home Visits	65
Demonstrations by Farm	
Bureau Agents	182
Attendance	5211
Lectures Given	38
Attendance	1770
Demonstrations by trained local leaders	230
Attendance	4526
Conferences	152
Attendance	912
Training classes held for local leaders	20
Clubs organized	88
Articles Written	45
Exhibits attended	30

Days in the field and office cover the time of the Home Demonstration Agent from Dec. 1, 1917 to Dec. 1, 1918 and the time of the Assistant from July 1, 1918 to Dec. 1, 1918.

STELLA S. SIMONDS, Home Demonstration Agent.

Boys' and Girls' Club Department

Extracts from Annual Reports

The work of the club department for the last year may well be divided into two types. The first is the actual club work and the second the special agricultural incentive and propaganda work due especially to the war agricultural needs. Since these two types of work were spread over the entire year, they will be more or less mixed but all will come in their natural order according to the time of the year.

Beginning with January: during this month, the county was visited by the State Junior Extension force and a series of so-called Junior Extension Schools held. This was as concentrated a campaign of Junior Extension instructive propaganda work as has ever been carried out in this county but the time wa stoo far away from contest starting time to get the best results with the exception of the Home Economics clubs which benefited a great deal from it. The same type of a campaign is being planned for March 1919 and with the 1918 schools as starters, we are looking for very good results. Seven towns were covered in 1918.

Late in January the boys and girls who had done good work in 1917 gathered at this school and formed what is known as the Norfolk County Boys' and Girls' Success Club. It is an organization made up of all club members completing a contest and the fundamental idea is to have the boys and girls carry on their own clubs and club organization work as far as possible. They have committees, town delegates, and county chairmen to whom they report. At a second meeting held last November this organization was strengthened and the coming year should be an important factor in club work.

To help along the propaganda work of everyone having a garden and raising some staple crop, much time was spent in the early spring, talking in the grammar schools urging the pupils to do their best to feed a soldier. Less emphasis was laid on actual market garden club work since in many cases there was little local leadership to give adequate supervision.

The spring of 1918 probably set a high water mark in the price of little pigs. As one dealer remarked about the animals, "All they need is a kick and a squeal to be worth \$10.00" The use of local supplies of little pigs was, of course, advocated but the demand among boys and girls was so great it was necessary to have sent into the county over 300 little pigs from one of the swill feeding establishments outside of Boston. This plan has been carried out successfully in a number of places and in times like the past year, is undoubtedly valuable. We are hoping however, to gradually work out of that method by developing better bred swine among the boys and girls and also among their parents. It might be well to emphasize here that one of the important phases of the work from now on will be the getting of more pure bred stock distributed among the children with the idea of raising breeding stock.

Of the boys and girls obtaining pigs, 279 became actual club members and while all records are not yet available, it is safe to say that over 100 completed. These members were followed up as much as possible by letters, visits, and meetings, but owing to the influenza in the fall, much of this work was lost.

In connection with the pig club work many of you will be interested to know that the moving picture has been introduced as a means of extending the work. During the summer and fall, a Norfolk County Club member took care of a pure bred Berkshire sow and under the direction of Mr. Rice, the State Pig Club Leader an excellent film of club work was made. I hope that if you have not already seen this film you will have chance to do so later. This is to be one of the features of the Junior Extension Schools and will undoubtedly be of interest to the children.

In the garden work, 113 enrolled and made an actual beginning. Twenty-six reported success and a number of the others reported but lost their crops in the June frost and did not replant.

During the summer visiting, it became very evident that the shortage of labor was affecting the club work as many boys who had started went into factories, and turned their home work over to their younger brothers or dropped it entirely.

The fall exhibits were nearly all cancelled, but previous to the influenza epidemic the county leader spent a good deal of time in the schools talking on the selection of vegetables for exhibition and for winter storage, which we hope did some good.

During the early winter, whenever the schools were in session, attempts were made to start poultry clubs and five successful clubs are now being carried on with a total membership of seventy.

This brings the year's program to a close but there are one or two new features that I would like to mention. The agitation for cheaper meat has led to some experiments among the boys and girls as to the possibilities of rabbit clubs and results seem to point to very good success. Another new club just getting under way is a calf club and while not especially recommended for this section of the State it will probably work out well in one or two sections.

Now for a few observations. The idea of the county leader visiting all members is now an impossibility. The fields extending at such a rate that the work of the county people is coming more and more to be the co-operation with local leaders and the visiting of only a few of the best and worst projects, leaving the direct supervision to the local people.

The tendency is toward better work with closer supervision of fewer numbers and less waste of material. This is summed up in a recent State recommendation "that no club work be started without adequate local supervision, other than in exceptional cases." This really means that the call for club work should come from the community rather than being thrust upon it. This points toward the forming of a county committee on club work, with town representatives to look after the work and I hope we will soon have such a group.

The year has been marked with great agricultural activity, the organization of the work has been greatly strengthened, the percentage of members completing is higher than in other years, and the club work is on a stronger foundation than it has ever been before.

J. T. D.

REPORT OF GIRLS' CANNING CLUBS.

1918

The organization of the girls' canning clubs took place in June, 1918, and was completed before the assistant club leader's connection with the Farm Bureau on July 8. The Home Demonstration Agent secured leaders for and organized 55 clubs representing 17 towns with an enrollment of 632 members. A very difficult part of club development was therefore completed before July 1 and the Home Demonstration Department undertook the

oganization and follow-up work of the Canning Clubs. Two training schools for leaders were held about June 1 in which twenty-eight leaders were trained in club leadership.

It was planned to visit each club once a month and this plan was executed until the epidemic influenza in September which cancelled all public meetings. At these visits instruction was given club groups in canning, drying and salting and efforts were made to stimulate interest in the club work and raise the quality of the products. Forty such visits were made, all the clubs in each town combining for the meeting.

The contest lasted from May 15 to October 15 and the exhibits took place in September and October. Several towns combined town fairs and canning club exhibits. Nineteen exhibits were visited and judged.

The total results are: 204 members completing all the requirements, reporting 12,567 quarts canned at a valuation of \$5,194.68. It is interesting to note that seven boys were among the number completing.

Besides the regular canning club requirements of twenty-four quarts canned, record, story and exhibit, four towns undetook local canning demonstration teams. The Worcester Fair gave opportunity for entering competition with other counties in demonstrations, and exhibitions of products. Several entered the exhibits from this county and a county team composed of representatives from Needham, Dedham, and Norwood won first prize in an inter-county canning demonstration competition. Two Junior Community Canning stations were established, one of which reported 5,469 jars canned by children at the kitchen.

Mere statistics cannot show the full value of this type of club work for there are many interesting stories of instruction given foreigners by girls taught in our Canning Clubs and many housewives have been benefited because of the work of the Junior Canning Clubs.

CANNING CLUB PRIZE WINNERS

State club prizes have again been awarded, for this county, this time for the Canning Club contest. They have been based as before on quality and quantity of work and general club spirit. Emily Hallowell of Norwood as first and Helen Findlen of Dedham as second prize winner are the fortunate ones to secure them. The first prize is the week's camping trip at Amherst looked forward to by ambitious club members from all over the State. The second is a book in recognition of the good work accomplished.

Several others throughout the county have done excellent work and deserve much praise for their earnest effort and good results. Among them are, Barbara Endicott of Norwood, Mary Ingraham of Millis, Gladys Price of Weymouth, and Mildred Morse of Canton.

TRAINED LEADERS FOR HOME ECONOMIC CLUBS

On January 4 and 11, one day training schools for leaders of Home Economics Clubs were held at Walpole and Braintree. The purpose was to give actual instruction in club leadership to as many leaders as possible so that they might feel qualified to give demonstrations to their clubs on patching, darning, and bread making, thus releasing the county leader for assisting in the towns where it seems most needed.

The program consisted of practical demonstrations, talks on judging bread, patches and darns, followed by a general discussion of club membership, and the responsibilities of leaders and members.

The meetings proved most helpful to all who attended and it is felt much value was gained towards leadership of the clubs.

HOME ECONOMICS CLUB CONTEST OPENS

Fourteen towns have now entered members in the Home Economics Club contest which opened January 15th and twenty-seven clubs have been organized. Several hundred boys and girls are actively engaged in making and baking bread, patching, darning, washing dishes and keeping house so that the goal of 60 hours in the three months may be reached. What a difference from the time when housework was a nightmare to be dreaded now that it has become a game to be looked forward to and enjoyed with other boys and girls. The boys are particularly skillful in bread making, and we already have a large enrollment from those who are anxious to compete with the girls. In Weymouth, one of our last year's club members, a boy, is to give the first bread making demonstration to the club members.

The leaders are planning some interesting programs for the meetings and competition between clubs in club songs and cheers is already starting. We are working for many 100% clubs this year, and high quality of work rather than large enrollments, but we are glad to welcome every boy and girl who means business into our club membership.

E. H.

Poultry Department

HINTS ON INCUBATION

If we wish to have our first hatch come off the 10th of March, our incubators should be started February 16, and we must start a few days before the 16th to save our eggs for hatching. In consideration of the abovementioned facts a few suggestions on the care and selection of hatching eggs may be of interest.

Some of the factors that affect the successful production of hatching eggs are: vigorous stock, proper methods of housing, constant selection, careful feeding methods, bredding only from the healthiest, and the proper number of hens with each male. It may also be mentioned that eggs hatch better in the breeding season.

The usual recommenation in relation to the number of females to one male is as follows: Asiatic class (Brahmas, Cochin and Langshans, one male to seven or eight hens: American class (R. I. Reds, Wyandottes, Rocks, etc.) one male to ten or twelve hens; Mediterranean class (Leghorns, Minorcas, etc.) one male or twelve or fifteen hens. Of course, this recommendation is not infallible because fair results have been obtained with more females to one male but it is the usual recommendation.

It is probably safe to incubate R. I. Red eggs eight to ten days after mating, and Leghorn eggs five or six days after mating. Good fertility may be expected to continue for a week to ten days after the removal of the male.

Eggs should rest on their side to be kept from 50 to 60 degrees Fahrenheit before setting, should be collected every two hours in cold weather, should be turned at least once daily after the second day, and should not be kept more than two weeks before setting.

Select only the medium sized, smooth, clean, uniform eggs that are

not cracked and have not been washed.

Bulletin No. 95, "Factors in Incubation," Connecticut Experiment Station, Storrs, Connecticut.

B. R. GRAVES.

Hatch Chickens Early

"THE EARLY BIRD GETS THE WORM"

The importance of early hatching can not be over emphasized. The time of hatching has a most direct influence on profits because it determines, more than anything else, the extent of egg production, as well as, prices received for eggs and market cockerels. Early hatched pullets have more days of maturity and, since there is a very definite correlation between the length of laying period and egg production, they are the greatest producers. Furthermore, the early pullet lays in the fall and winter when eggs are high and her eggs are not only geater in number, but also higher in value.

The Advantages of Early Hatching are:
1. A longer laying period giving a larger and more profitable egg production.

2. Greater returns from the sale of surplus cockerels.

3. More uniform distribution of egg production.

Greater proportion of eggs when prices are high.

- More thrifty chickens, making a quicker, better and cheaper growth.
- 6. Excellent breeders that lay in early spring when hatching eggs are most wanted.
- 7. Pullets that maintain the flock production when hens are molting or being culled for market.

8. More uniform distribution of poultry labor and a lessening of

its interference with other farm work.

More efficient use of equipment and greater efficiency in plant operation if proper proportion of very early hatching is done.

10. Greater Profits.

RECOMMENDATIONS

General That all chickens be hatched before May 1.

The most profitable pullets mature to lay by November. Birds of the American breeds require about 200 days to come to maturity. Ordinarily, the poultryman had best observe the time required by his stock in former years to come into laying and then count back that length of time to fix his latest hatching date. Earlier hatches will, of course, have further advantages.

Commercial Plants That one third the hatch come off before March 10.

In order to maintain egg production during the late summer and fall when hens molt and are being culled for market, and before later hatched pullets get started, one flock of chickens should be hatched especially early and matured to lay in August. It is to be expected that some of these birds may molt during the early winter, but before doing so their production is profitable, often paying the entire cost of production, and the molt is usually partial, sometimes restricted to the hackle, and is quite rapid. Coming back into laying much earlier than do hens and having had a rest from egg production, these early pullets make excellent breeders, laying when hatching eggs are most desired and hardest to obtain. Furthermore, the cockerels from this hatch bring the highest market returns, greatly reducing the cost of maturing the pullets.

MASS. AGRICULTURAL COLLEGE.

OAK TREE FARM

Breeders of

WHITE ROCKS AND WHITE WYANDOTTES

HATCHING EGGS AND BABY CHICKS IN SEASON

Custon Egg Hatching

Longfellow Seed Corn

FRANKLIN A. BRUMMIT, MANAGER

Home Making Department

Holbrook Has Its Second Extension School

As the result of a very successful two day extension school held in Holbrook last winter, a request was made by the women's committee this year for another school. Owing to the food situation last year, a strictly war program was given, the lectures and demonstrations being confined to food conservation. This year the program was arranged as nearly as possible, to fit the needs of the times and local conditions. The school just given was in cooperation with the Massachusetts Agricultural College and the Norfolk County Farm Bureau, the majority of the lectures and demonstrations being given by a State Extension worker and the County Home Demonstration Agent. Added interest was given to the program by Madam Squier of Boston who gave an illustrated and practical talk on the Possibilities in Renovating and Remodelling Clothing. We were fortunate in having Doctor Champion, Director of Hygiene of the State Board of Health, speak on the very timely subject of How to Keep Well.

At the close of the program three local committees were appointed to carry on work in which interest had been aroused and it is hoped that through the efforts of these committees that a class in remodelling clothing will be organized, a warm school lunch can be established, and the steps will be taken to make possible the services of a nurse in the town.

The success of the school and a very good attendance at all sessions can be largely attributed to the interest taken and the work done by the local committee in charge of the arrangements.

Following is the program which was given and a report of the attendance at the school:

FIRST DAY

- 9:00—10:00 Our Attitude during the Reconstruction Period 10:00—11:30 Demonstration—How to Make a Little Meat go a Long Way
- 1:00— 2:00 Talk—Planning our Meals at War Prices 2:00— 3:30 Illustrated Talk—Labor Saving Devices for the Home
- 3:30— 4:30 Questions and Discussions

SECOND DAY

- 9:00—10:45 Demonstration—Three Meals a Day
- 10:45—11:30 Illustrated Talk—Possibilities in Remodelling Clothing.
- 1:00- 2:00 Talk-How to Keep Well
- 2:00- 3:15 Demonstration-Supper Dishes for Winter Evenings
- 3:15-4:00 A "Carry On" Program

Statistical Report of Attendance

Different	people at	tend	ing .			 	 	 	٠.			. (36
Average	attendance	at	each	sess	ion	 	 					. :	38
Number	attending	four	sessi	ons		 	 					.:	15
Number	attending	thre	e ses	sion	з.	 	 						17
Number	attending	two	sessi	ons		 	 					. :	27
Number	attending	one	sess	ion		 	 				 	(6£

A similar school is available to any town interested in it and the Home Demonstration Agent will gladly assist local committees in arranging for it.

Safeguarding Our Children's Health

"It is safer to be a soldier in the front line trenches than to be a baby in America."

It seems hardly credible that living conditions in our country will warrant such a strong statement as Dr. Baker of the Children's Bureau has made. Knowing that this statement is proven by the statistics of our infant mortality, we are convinced that steps should be taken to make the repetition of such a statement unfounded.

The mothers' section of the Franklin Woman's Club is planning the following program to be given during February and March to the mothers in that town.

PHYSICAL CARE AND DEVELOPMENT OF THE CHILD

Miss Genevieve Jules, Health Instructor, State Board of Health

FOOD FOR OUR CHILDREN

County Home Demonstration Agent

SAFE GUARDING OUR CHILDREN'S HEALTH

Dr. Sprague, District Health officer, State Board of Health

MENTAL DEVELOPMENT OF THE CHILD

A trained Kindergartener

If you think that the mothers in your town would be interested in the same course, will you not communicate with the Home Demonstration Agent?

S. S. S.

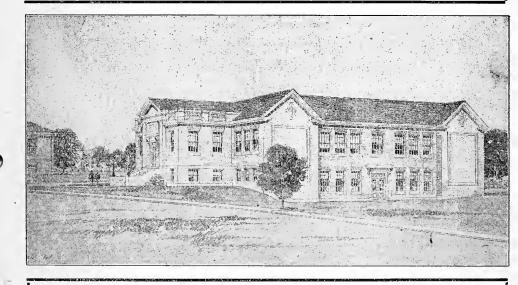
NORFOLK COUNTY AGRICULTURAL AND HOME MAKING BULLETIN

VOL. II

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No. 15

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FREDERIC W. KINGMAN BENJAMIN R. GRAVES MALCOLM D. CAMPBELL JAMES SALTER ANDREW N. SCHWAB MARY E. SHEPARD FARM BUREAU DEPARTMENT FARM BUREAU DEPARTMENT EPERDERIC W. KINGMAN



Timely Topics

Bee Keeping and Poultry Short Courses

The Norfolk County Agricultural School announces the opening of short courses in poultry and bee keeping on Thursday, February 20, at 7.30 P. M. Classes will meet Thursday evenings for four or five weeks. The war is over but high prices of food are with us to stay. Why not reduce expenses by becoming an efficient and economical producer. Attend these courses and learn the latest and best methods. Instruction is free.

The poultry lectures will include:

1. Breeds and breeding

- 2. Incubation, natural and artificial 3. Brooding, natural and artificial
- 4. Feeds and feeding
- 5. Houses and housing

State Legislative Committee Visits School

On Thursday, February 10, the State Legislative Committee on Education (Honorable George B. Churchill of Amherst, Chairman) visited the school to learn the need for enlarging the school plant, and to continue the hearing on House Bill No. 1317, entitled "An act to authorize the Trustees of the Norfolk County Agricultural School to take certain land and construct certain buildings." Said Act reads as follows:

"Be it enacted by the Senate and House of Representatives in General

Court assembled, and by the authority of the same, as follows:
"Section 1. The trustees of the Norfolk County Agricultural School are hereby authorized to purchase or take by right of eminent domain certain land in said county and to construct a barn and other necessary build-

ings for the use of said agricultural school.

"Section 2. To meet the cost of purchasing or taking of said land, and the erection of such buildings, the county commissioners of said county are hereby authorized to issue bonds of the county to an amount not exceeding forty thousand dollars, said amount to be paid over to the trustees upon their requisition by the treasurer of the county. Said bonds shall be issued for a term not exceeding fifteen years, and shall bear interest at a rate not exceeding 5 per cent, payable semi-annually. Said bonds shall be issued under the provisions of section three of chapter one hundred and eighty nine of the General Acts of nineteen hundred and fifteen so far as the same applies thereto.

"Section 3. This act shall take effect upon its passage."

The appropriation authorized in this bill will permit the purchase of additional land (about ten or twelve acres) and the construction of a dairy barn 84'x40,' a green house, a large shop for farm mechanics, milk room, feed room, and a poultry house.

Mr. R. W. Stimson, the State Agent for Agricultural Education, appeared

before the committee in behalf of this measure.

Agricultural Department

Fruit Notes

Now is a good time to look over your spraying apparatus, and if any repairs or new parts are needed they should be procured. It is poor business to wait until you are going out to spray and then find some part of the equipment broken or missing. It is better to have everything ready. This also applies to insecticides and fungicides.

Pruning

Pruning should be nearly completed during the month. Any large wounds (two inches or above) should be painted for protection. A well mixed paint of white lead and raw linseed oil, applied after the wounds are well dried out, is the standard treatment. Bear in mind that clean, smooth cuts heal up quickest, and besides they have a much better appearance. Burn the trimmings and thus destroy any insect nests or fungus that may be on them.

Hotbeds

If the hotbed has not been started previous to this writing—no time should be lost. Spring will soon be here and we should be ready. In locating the hotbed, select a southern or south-eastern exposure near the house (for convenience of management) protected from the north and northwest winds. Do not allow the hotbed to be shaded by trees, fences, or buildings.

The heat is secured by using fermenting horse manure, collected fresh with about one-third of its bulk consisting of short strawy litter. Pile this material under cover to heat. After the pile has heated thoroughly, it is forked over, making sure that the manure on the exterior of the first will be on the interior of the second pile. In a few days it will be well heated up and ready to put in the hotbed pit. Place a layer of the manure six inches deep in the pit—tramp it evenly and thoroughly, adding successive layers until a depth of two feet is reached. Cover with six inches of good soil, spread level, and put on the sash. The temperature may rise to over 100 degrees F., but as soon as a decline below 90 degrees F. is reached, seed sowing may begin.

Ventilation requires careful attention, the object being to secure strong, stocky plants.

Be careful in watering and do it in the morning, allowing the foliage of the young plants to dry off before night. At night cover the sash with strawy litter and boards to keep it in place.

MANURE AND FERTILIZER

If not already provided, secure the needed supply at once.

How about seeds? · Are they on hand and have they been tested for germination?

J. S.

HOW MANY EGGS SHOULD A HEN LAY TO PAY FOR HER KEEP?

The average retail price per dozen eggs for 1918 was 62% cents. The average cost of feed was \$3.75 per hundred pounds. Considering that the average hen consumes 80 pounds of feed per year, the feed cost would be \$3.00. Figuring that the average hen lays 100 eggs, she would produce \$5.23 worth of eggs. This would leave \$2.23 for the cost of grit, shell, charcoal, the interest on investment, depreciation, and labor.

It may be of interest to note that the average hen lays between 70 and

80 eggs per year.

We must have birds that produce a hundred eggs or more to make

money in the poultry business. B. R. G.

If you have any birds, eggs, or chicks for sale, please notify the poultryman at the school. We will also supply the names of persons from whom you may purchase stock.

The Privilege of Making Money

That's what the Government has, but being a democracy, it leaves the door open for everyone else to do likewise—in his own business. Farmers have this privilege and now that the war is over, they certainly can take

time enough off to figure how to make more money.

A pencil and paper are often capable of helping many a farmer make money. Why do business men, and business farmers, keep records and accounts? The only reason is to make more money in two ways—one by saving on the expenses, and the other by increasing the receipts. "Saving the nickels makes the dollars," provided they are the right nickels to save, for some nickels spent in some ways will make dollars. A farm account book that costs three nickels (15c) can be obtained by anyone from his County Agricultural Agent or from the Agricultural College.

Now, this simple, "easy-to-keep" account book, if kept for 1919, then the

Now, this simple, "easy-to-keep" account book, if kept for 1919, then the results of the year studied, will show most any farmer more about his business than he ever knew before. Making money with a pencil is new to many farmers, but judging from the interest manifested in securing this

farm account book, the proposition is sound.

Why do farmers want to "keep books?" Here are the reasons some men have in starting. One man wants to know what each cow has paid him for the year. He is a little worried about the relative size of the grain bill and the milk check. Next year he will know what his cows have averaged to return him for their keep. He will also know what the grain bill has been for each cow. If you know these two items for the past year, how did you find out without keeping accounts?

Another man hires considerable labor while he peddles the farm products. Is it worth the cost? Shall he sell at wholesale and thereby save on his present labor expense? He wants to know whether that hired help

is profitable and he has started to find out.

Farmer B and his wife have for some time had a dispute. A farm account book is going to settle the argument this coming year, for it's a question of which pays better, the cows or the hens. Yes, Mrs. B is going to

keep the records, but by acting as auditor, Mr. B will get so interested in what the results are that next year—why, he'll keep them if she won't!

How about the income tax—both State and Federal? Are you sure your return last year was right? Some farmers are keeping accounts this year so that when next January comes around, they'll know how to fill out the income tax statement. Maybe some will prove that they should pay none. Memory is a poor tool when used to fashion the year's receipts and expenses of a farm.

So it goes! Different farmers have different reasons for wanting an account book that is not difficult to keep, yet effective. No matter what the reason for starting may be, it's sure to be a good one. Nobody ever knew too much about his farm business, and lots of farmers know less about their

own than their neighbor's!

Are you going to be like the rest and start the year right with a farm account book? Such a book, like castor oil, must be used to be effective. So, if you get one, don't leave it on the shelf.—Use it as a means of making more money from the farm.

BENJAMIN G. SOUTHWICK, Massachusetts Agricultural College.

For Sale

Setting eggs—Single Comb Rhode Island Reds—at \$1.00 per dozen. Samuel Law, Foxboro, Mass. (Tel. 87-13)

For Sale

Single Comb Rhode Island Red Baby Chicks, at \$25.00 per hundred. Also hatching eggs from good laying strain, at \$10.00 per hundred, \$95.00 per thousand.

George Hagopian, RFD 120, Wrentham, Mass., (Tel. 15-12)

For Sale

Barred Plymouth Rock hatching eggs in small lots, at \$1.50 per setting. Carl Wiklund, Norfolk, Mass.

For Sale

Baby chicks and hatching eggs—Rhode Island Reds and White Rocks. Chicks at \$22.00 per hundred; Eggs at \$10.00 per hundred The Poultry Farm, 258 Main St., Walpole, Mass. (Mail address: Westwood, Mass.)

Home Making Department

Using the Winter Vegetables

Having a variety in our menus seems to be a greater problem for the housewife during the winter months than in the summer season when we have our gardens to fall back upon. This difficulty can be largely overcome if a greater use is made of the winter vegetables and more ingenuity used in preparing them in different ways. Every effort should be made to prepare and serve vegetables so attractively that even the indifferent appetite will be tempted, for by omitting vegetables from our diets we are eliminating a food necessary for the best health. Vegetables as a whole are rich in mineral salts, vegetable acids, and body regulating substances which are necessary to keep the blood and the whole body in good condition. They are better than medicine for preventing the common evil of constipation. Remember that vegetables have their own particular part to play in the

diet which meat, cereals, or sweets cannot take.

Sometimes the best flavor of the vegetables is lost through improper cooking. All boiled vegetables should be drained as soon as tender as they become soggy if they are allowed to stand undrained after cooking. Most vegetables should be cooked whole when possible, and in a small amount of water. Otherwise, a part of the mineral salts dissolves in the water and is lost when the water is thrown away. Delicately flavored vegetables should be steamed or cooked slowly in a small amount of boiling water until tender and the water boils away. Strong flavored vegetables are better if cooked uncovered in a large amount of rapidly boiling water and the water changed several times during cooking. Starchy vegetables should be put on to cook in a sufficient amount of boiling water to cover them, boiled gently, and kept covered during the cooking. Overcooking changes and toughens the texture of vegetable foods, destroys the coloring matter, and injures the bodies which contribute to the flavor. Overcooked vegetables are inferior in appearance and flavor and are often indigestible as well as unpalatable

LIMA BEAN LOAF

3 c. lima beans 1 t. salt 1 T. parsley 1 egg

½ t. pepper 1 T. grated onion 2 T.bread crumbs 1 c. white sauce.

Wash, soak and cook beans until soft. Strain, force beans through a coarse strainer, add seasonings, 3 of the well beaten egg, and the white sauce. Mix thoroughly. Pack into a well-oiled bread pan. Brush top with remainder of beaten egg, sprinkle with crumbs and bake in a moderate oven for about forty minutes. Turn on a platter and garnish with slices of crisp bacon and parsley. Serve with a tomato sauce.

CREAMED CAULIFLOWER AND TURNIP

Break cauliflower into small pieces and cook until tender. Use double the amount of white turnips cut in small cubes and cook until tender. For three cups of combined vegetables use two cups of milk sauce and 3 T. grated cheese. Serve as a creamed or escalloped dish.

CARROT FRITTERS.

1 c. cooked chopped carrot 3 T. chopped onion

½ c. milk 1 t. salt

1 egg speck pepper

about ½ c. bread crumbs

Cook all ingredients in a double boiler until very hot. Spread on a plate to cool. Shape, roll in crumbs, egg, and crumbs, and saute or fry in deep fat.

CREAMED VEGETABLE SOUP

1 onion 4 c. milk ½ c. diced turnips 3 T. fat ½ c. diced carrots 1/4 c. flour ½ c. peas or beans 2 t. salt 2 c. water speck pepper

Cook vegetables in water and force through a coarse seive. Make a thin sauce of the remaining ingredients; combine with vegetables. Serve

ESCALLOPED ONIONS

Peel medium sized onions. Cover with boiling water and cook uncovered until tender. Onion should retain shape. Place cooked onions in baking dish, cover with white sauce, sprinkle with buttered crumbs and brown in the oven. As a variation, $\frac{1}{4}$ to $\frac{1}{2}$ c. of grated cheese may be added to the white sauce before pouring over the onions.

SAVORY POTATOES

2 c. diced potatoes, 1 small onion cut fine and $\frac{1}{2}$ t. salt. Cover with boiling water and boil five minutes. Add one chopped pimento and boil until potatoes are soft. The water should be almost wholly absorbed. Pour over this a white sauce made of two tablespoons of oleo, 2 T. flour, 1 c. milk, ¼ t. salt and ¼ pound of cheese cut fine.

GLAZED SWEET POTATOES

Wash, pare, and parboil four good sized sweet potatoes. Drain, cut into lengthwise slices about 1/2 in. thick and lay in a baking dish. Spread thickly with a syrup made from 1/3 of a cup of nut margarine, ½ c. brown sugar and ½ c. hot water. Bake until tender, basting frequently with the syrup in the pan.

Ouincy Appoints a Home Demonstration Leader

Residents of Norfolk County will be glad to know that Quincy, the only city in this county, has appointed a Home Economics Leader. Miss Edith Badger of Milton, formerly an instructor in the Garland School of Home Making, Boston, has been appointed to this position and assumed her duties February 20.

Home demonstration work has been in effect in several cities in Massachusetts since September, 1918. This work is made possible through the

Federal Smith-Lever appropriation for furthering extension work and an equal appropriation from the city government. Reports of the activities of city home demonstration agents who have been in the field for the past year, show that much has been done for both old and new Americans in improving health and living conditions.

A New Home Economics Council Elected

In accordance with the constitution of the Home Making Department, a Home Economics Council for the ensuing year was elected at the annual meeting of the Norfolk County Farm Bureau, January 18, 1919. Since seven projects have been adopted by the Home Making Department for the coming year, it seemed advisable as far as possible for each member of the Council to represent and further a definite project. An effort was made to choose for the Council women who have a special interest in the projects adopted for the county. Following are the names of the new council members and the project which each represents. Bi-monthly meetings will be held the first Friday of alternate months, when the Home Economics Council and the Home Demonstration Agent will review and develop plans for work throughout the county.

1. Organization-Mrs. Charles S. Bird, Walpole

Warm School Lunch—Mrs. Joseph S. Leach, Walpole
 Child Welfare—Mrs. John G. Palfrey, Sharon

4. Conservation of Clothing-Mrs. Arthur Owen, Mrs. Mabel Swift, Foxboro

5. Food Preservation—Mrs. Eugene Endicott, Norwood

6. Household Management

a. Labor Saving Devices-Mrs. H. F. Winslow, Norwood

b. Family Budget—?

Clothing Efficiency Classes Are Popular

Much interest is being shown in the clothing efficiency classes that are being held this month in Norfolk County by Mrs. Ruth Stevens Reed. The course consists of four lessons, the first in the series being a lecture open to the public, while the following lessons are all day sessions and confined to a group of not more than twelve women who are doing practical work under the supervision of the instructor.

In this course suggestions are given for better dressing on smaller expenditures, the value and necessity of correct line, refinement, and artistic results, rather than fads and fashions; a foundation skirt draft is made from which, by short cuts, various other patterns are made; a tight French waist pattern is adapted to fit all sizes and figures; various types of sleeve patterns are drafted; a one piece dress is put together without a fitting and every unnecessary motion in the process eliminated. it should not be withheld for this reason.

We are privileged in Norfolk County in having Mrs. Reed for two courses, one in Walpole and one in Franklin. Although the membership

of the class is limited to twelve people, observers who wish to attend are welcome. As a result of this invitation extended to the public there has been an average of seventeen observers at each lesson in Franklin.

It is, hoped and expected that the members of the clothing efficiency schools will consider that they have a responsibility in passing on to other members of the community the information which they have received from the class.

Ingenious Women Are Making Practical Garments from Flour Sacks

The high cost and poor quality of cotton cloth at the present time have made it advisable for women to be prudent in the use of all available clothing material. A group of women in Foxboro interested in working out the possibilities of making clothing from flour sacks have arranged a practical and attractive exhibit which includes table covers trimmed with mile a minute crochet, pillow cases, dusting cap, various styled aprons, boys' night shirt and women's underwear. The exhibit was displayed at the annual meeting of the Norfolk County Farm Bureau and appealed to many people present as a distinctly educational exhibit. Requests have been made since that meeting to have the exhibit placed at the Massachusetts Agricultural College during Farmers' Week, the Salvage Bureau in Boston, and the Clothing Facts Cottage on Boston Common.

Solving the Warm School Lunch Problem

Serving a cup of hot cocoa or soup to the children who must bring cold lunches to school is a problem that is receiving attention in several of the towns in this county. Each town presents an individual problem, but no problem is so great that it cannot be solved. It may be interesting to know what other towns are doing in making this project possible, for their solution may be helpful in overcoming your difficulty.

The aim in every instance is to serve nourishing cocoa for two cents a cup and soup for three cents a cup, which is the minimum price, thus making it available to the majority of children. There may be cases where it is impossible financially for the child to purchase it at this price, but it should not be held for this reason.

In order to have a reserve fund to cover any deficit incurred by the warm school lunch and to improve equipment, etc., the school children of Franklin in cooperation with the teachers and district nurse have given a benefit play and candy sale. One hundred and nine dollars and thirty cents were realized from this effort. This enterprise is well worth emulating but will be very hard to beat.

Lack of room in the grammar schools in Foxboro made it impossible for the warm dish to be prepared in the school. This made another use for the Foxboro Thrift Center and ten interested women have volunteered to give their services one morning once in two weeks to prepare the cocoa or soup in the Thrift Center for the school children. The cocoa is sent to the schools in eight-quart covered milk cans at twelve o'clock, served in the school room by two of the girls, the soiled cups returned to the Thrift Center after lunch and washed by two girls under the supervision of the woman in charge. Money and equipment have been donated by interested women and organizations and earned by holding a food sale for this purpose. This illustration serves as a splendid example of cooperation among the school officials, pupils and townswomen.

Junior Club Department

ADDRESS AT NORFOLK COUNTY AGRICULTURAL SCHOOL, WALPOLE JANUARY 18, 1919

At the annual Farm Bureau meeting, January 18, 1919, Professor O. H. Benson, in charge of girls' and boys' club work in the north and west sections of the country, was introduced by Emily Hallowell, one of the county club members as follows:

"We boys and girls who are members of an agricultural or home economics club are intimately acquainted with our national club leader through the many bulletins which he has written to help us. Of course, we naturally feel that he belongs more to us than to you grown-ups since his interests are in our welfare, even though we never expected to know him personally But as long as you have come here this afternoon, we are going to lend Mr. Benson to you to tell you about the boys' and girls' clubs and what they do for the nation."

The following points regarding junior extension work throughout the country were emphasized by Mr. Benson during his talk:

BOYS AND GIRLS OF NORTH AND WEST LEARN TO IMPROVE FARMS AND HOMES

An organized effort to improve agriculture and home life through boys and girls—that is, the purpose of boys' and girls' club work as conducted in the 33 northern and western States by the United States Department of Agriculture and State agricultural colleges.

Boys' and girls' club work is as permanent as is the public school system, because it is backed by permanent institutions, State and Federal, per-

manent legislation, State and Federal.

It is a definite part of the cooperative extension program in every State in the Union and a definite part of the county farm bureau or other farmers' organization for cooperative extension work within a county.

Extension work with boys and girls covers the field of food production and food conservation, also work in home economics or home-making lines.

Boys' and girls' club work is designed to change the point of view of the boys and girls, both rural and urban, of America so that they will want to make further preparation and study in the business of farming and homemaking, and will see the need of taking the Smith-Hughes vocational courses in agriculture and home economics, and matriculating for courses in colleges of agriculture.

Club work makes farm and home work, sometimes thought of as drudgery, an interesting game. Club work sets standards of achievement for boys

and girls in home activities and dignifies common labor.

It is training for community leadership and farm and home cooperative work of every type and kind.

It socializes community life through the boys and girls, and gives young people a real motive in all their work.

It also teaches farm boys and girls that it is infinitely better to be a proprietor of farm land, farm animals, machinery, crops, kitchen equipment, etc., than to be a mere wage earner.

It produces and conserves food to meet local, national, and world needs on an economic basis.

It demonstrates how to make farming and home making profitable and tolerable.

It engages the best thought, energy, and interest of every boy and girl in the business of farming and home making. Club work is a practical back-to-the-home, "made-in-America" type of education that has for its chief aim the practical basis for extension education, not provided for in the public school curricula nor in the Smith-Hughes vocational work.

Boys' and girls' club work has a permanent, year-round program of work, both for the group and the individual member, supported by permanent funds, permanent program, permanent leadership in every State in the Union, and reaches boys and girls, both in and out of school, of all ages from 9 to 21 years. In most States they are grouped in two classesmembers of the boys' and girls' clubs from 9 to 15 and junior farmers and home makers from 15 to 21.

Boys' and girls' cooperative extension work includes all extension activities of young people, including club work, junior short courses, boys' and girls' institutes, summer agricultural camps, field trips, field demonstrations, boys' and girls' fairs and festivals, demonstration team contests, club

programs, training conferences for leaders, and so on.

O. H. BENSON.

In Charge of Boys' and Girls' Club Work North and West.

SUMMARY OF REMARKS BY EDWARD TISDALE AT ANNUAL FARM BUREAU MEETING

Throughout the state of Massachusetts there is being carried on quite extensively boys' and girls' club work. There are various clubs, such as Market Garden, Canning, Pig, Corn, Poultry, and Home Economics, in which one may enroll. The particular club that interests me is that of market gardening. The value of these clubs is inestimable. The real true spirit of competition is reached. Thrift is developed in each community, and the work better fits the future citizens of the country.

During my two years in the work, I have been fortunate enough to gain recognition in the form of prizes. My first year I received a valuable book on agriculture, while my next year I received a week's camp trip to There I attended the lectures and demonstrations and enjoyed the well arranged program. This present year I am chairman of the Market Garden Club of this county, and I earnestly hope that more girls as well as boys will enroll in this club as well as the other interesting clubs.

in helping to spread this great movement.

THE STORY OF MY CANNING

by Doris B. Garey, Weymouth

When I learned that some canning clubs were to be formed in Weymouth this year, I was very glad to become a member of one of them. Our club consisted of twelve girls. We organized under the name "Uncle Sam's

Helpers."

For a number of weeks we held meetings at the leader's home. Later when the members began to go away on vacations, we worked at our own homes. Besides, we had several meetings at the High School where either Miss Homer or Miss Simonds gave us helpful lectures on canning and drying. I remember one occasion especially, when Miss Simonds was present, when we could not find the keys to the school house and were obliged to camp out on the rocks.

We were afraid there was little danger of our becoming a banner club. Besides, some of the members were afraid they would can more than they could use, and still others could not get the material to can. Fortunately for me, our family had large appetites, and I was able to obtain plenty of

fruit and vegetables.

Just when I was the busiest, there began to be talk of demonstration teams. To my great dismay I was asked to be demonstrator number one. Two other girls were also chosen to be on the team. We certainly practiced and it was harder than all the actual canning put together. Our demonstration was to take place at the Weymouth Fair. We found on getting there that several other demonstrations were to come before ours. When at last I mounted the platform every bit of my talk went out of my mind, and when I got through saying whatever I could I firmly resolved never to try it again. My only consolation was that I had received the first prize for the children's canning exhibit at the Fair from the Weymouth Agicultural Society.

I canned only thirty two quarts, but it was enough to help out the family's supply considerably. I was fortunate enough to lose but one pint jar, and that was from flat sour as I discovered one night on coming home

and finding all the family holding their noses.

All the other members of the club finished the requirements, too, and we received with rejoicing the news that the last members pulled through, helping Weymouth to have five of the seven banner clubs in Norfolk County.

Progress of Home Economics Clubs

The home economics clubs have been greeted with enthusiasm all over the county and the present reports are most encouraging. The enrollment is smaller than last year, owing to the fact that a high pecentage of completions is desired and every effort is being made to encourage one hundred percent success in each club. It has also been felt that close supervision from this office will give most satisfaction to the local people and monthly visits are being planned and carried out.

Twenty-eight clubs have been formed and have been given bread demonstrations. Several clubs have had patching and darning lessons. In some instances the mid-contest preliminary judging has been held, and the products show excellent efforts on the part of the young workers. The club meetings visited have been much enjoyed because of the active part which the club members are talking in them, and the club names and songs which have come in show great originality. It is the plan of the Club Department to publish a brief report of club development in different towns from time to time. The following summary of the progress of the home economics clubs will show in brief the work going on in several of the towns:

Bellingham—"Bound to Win Club"—Seven members. Meetings include darning and patching lessons and fondant making.

Dedham—"Cheerful Workers"—Ten members. Meetings include bread making demonstration and discussions on bread making.

Needham—"Sticktuit"—Eight members. Meetings include bread making demonstrations and lessons on patching and darning.

Randolph—"Up and Doing Club"—Thirteen members. Bread making demonstration. Lesson on sewing machine and patching and darning.

Walpole—"Work and Win Club"—Six members. Bread making demonstration. Patching and darning lessons.

All of these clubs have interesting club cheers or songs. The Walpole "Work and Win" girls composed both music and words to their song:

We will work and we will win For the Work and Win Club are we. We always work, we never shirk, For we must win, you see.

We wash the dishes and pans, We clean the rooms up spick and span; We cook and boil and bake and fry And make the bread and cake and pie.

So here's three cheers for the club that will win That will be the best club That there ever has been.

Bread Club Experiences

When asked why he joined the Home Economics Club, Theodore Hersey, eleven years old, of Foxboro, replied that he wanted to see if he could make bread. Eaving found that he could, and having won a prize on it during his first year in the club, he has decided to join the club this year. His special feat at the annual Farm Bureau meeting on January 18, was to judge his own loaf of bread which he had made and brought with him for the purpose. He used the following score, which is the one in use by the Home Economics Club members all over the state:

	Perfect	Member's
	Score	Score
External appearance (color 5, size 5, shape 5)	15%	
Crust (depth 5, texture 5) Crumb (color 5, grain 10, lightness 10, moisture	10%	•••••
5, thoroughness of baking 10)	40%	
Flavor	35%	• • • • • •
	100%	

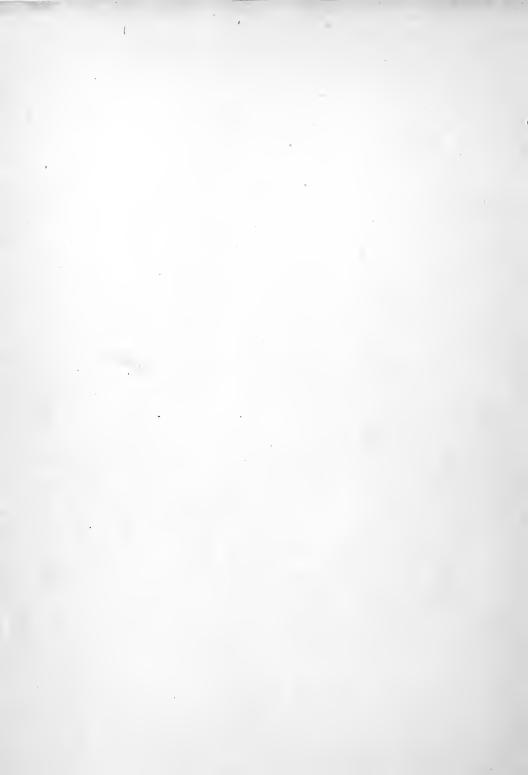
Because of a few minor defects, such as one corner being blunt instead of sharp and square, a darker shade of brown on the bottom instead of evenly golden all over, Theodore scored his loaf only 94 percent instead of 100. It was excellent bread, however, and proved the value of setting high standards for club members. Incidentally, it was very enlightening to the majority of grown-ups present to learn the fine points of judging bread.

The 1918 Canning Club Contest

A brief summary of the 1918 State Canning Club report may be interesting to many who do not realize the scope of this work. The total enrollment of the state is 3487 members, the total number of clubs 244, with 33 banner clubs. The total number of quarts canned (from reports rendered) is 74,421¼, valued at \$32,321.73.

Norfolk County ranked first in the state in the number enrolled and first in the number of banner clubs. It was second in the number complet-

ing all requirements, and third in the number of quarts canned.

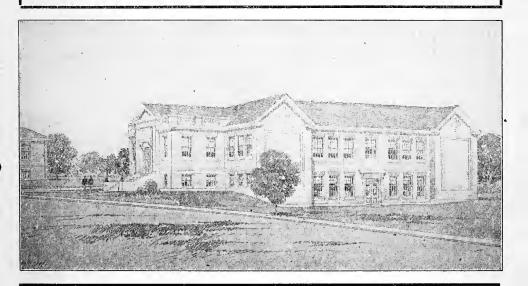


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	SCHOOL STA	AFF .
FR	EDERIC W. KINGMAN	Director
BE	NJAMIN R. GRAVES	Poultry Husbandry
MA	LCOLM D. CAMPBELL	Animal Husbandry
JA:	MES SALTER	
AN	DREW N. SCHWAB	Weymouth Dept.
MA	RY E. SHEPARD	Sec'y and Accountant
	FARM BUREAU DE	
	EDERIC W. KINGMANLLARD A. MUNSON	

Timely Topics

Inspection of School and Farm

On Friday, February 21, the Legislative Committee on Counties, which acts as a ways and means committee on county matters, visited the Agricultural School in company with Hon. John F. Merrill and Dr. Everett M. Bowker, Trustees of the School, and members of the Board of County Commissioners. The purpose of the visit was to gather information concerning the need of enlarged facilities as called for in House Bill 1317.

This is the second Legislative Committee to visit the school. It is evidently the intention of our legislators to investigate the school thoroughly before rendering a favorable report. This is as it should be. We

welcome the most thorough examination of every department.

Visit of Director and Staff of Bristol County Agricultural School

Director George H. Gilbert and Staff paid us a visit on Friday, February 21, which was very much appreciated by students and teachers. Mr. Gilbert addressed the boys at their council meeting giving them good advice and upholding the dignity and honorable character of the farmer's calling.

Norwood Poultry Association

This association seems to have taken a new lease of life. A large and enthusiastic meeting of the members was held at the school, Friday evening, March 7. Plans were made for securing excellent speakers for meetings in the near future and steps were taken toward the formation of a county association of poultry men.

Weymouth Department

William Nolan and Robert Polson of the Weymouth Department of The Norfolk County Agricultural School have started in the poultry business at Horace Randall's place, 397 Middle St., East Weymouth under the direction of Mr. Randall and their instructor.

In order to supply the demand for day old chicks they are making use of Mr. Randall's 3,000 egg incubator. These two students are also doing

custom hatching. Three hundred chicks are to be raised from the March hatchings for early fall layers, more are to be raised later in the spring.

Besides the above mentioned project there are 9 garden projects, 2 dairy projects, and 6 poultry projects at the homes of the various boys attending the Weymouth Department of the Norfolk County Agricultural School.

A. N. S.

Chicks-Custom Hatching

Day old chicks from a well known strain of poultry for sale. Custom hatching in Randall's 3,000 egg incubator, in 150 egg compartments. Call at Horace Randall's, or "Tel. Weymouth 189-W."

For Sale

Baby Chicks and Hatching eggs. Rhode Island Reds and White Rocks. Chicks at \$22.00 per hundred. The Schreiter Poultry Farm, 258 Main St., Walpole, Mass. Tel. Walpole 193-3.

Laying Pullets

For Sale

30 Rhode Island Red Pullets.

Year old stock. Price \$2.25 each. FRED WOOD, 571 Main St.,

Telephone Walpole 229-3

Walpole, Mass.

For Sale

A few hives of bees at moderate prices.

Settings of Rhode Island Red Eggs (Utility), 2 cocks and 8 hens,
Silver Gray Darkings, one the winner of \$100.00 Challenge Cup, Boston
Show 1918.

CHARLES E. THORPE,

Braggville, Mass.

Wanted

A 5 ft. McCormick Mowing Machine for its parts.
M. A. EVANS,

West Wrentham, Mass.

For Sale

Hatching eggs from a good laying strain of White Plymouth Rocks. \$1.50 per setting, also in lots of 25 or 50.

MR. LEON REGAN,

748 Washington St., Walpole, Mass.

For Sale

White Plymouth Rock hatching eggs in small lots. \$1.25 per setting. From good laying strain.

Telephone 273-R

WILLIAM S. FISHER, 167 South Washington St., North Attleboro, Mass.

Agricultural Department

Hotbeds

Seeds that were planted in the hotbed during the early part of last month should be getting large enough to transplant. Do not neglect this important operation. A mild hotbed with a night temperature about 60 deg. F. will be necessary in which to place the flats of newly transplanted plants or the plants may be set direct into the soil of the hotbed without using flats. As the season advances the sun will be getting higher, and we shall find it necessary to give more ventilation to the young plants.

Ventilate, by raising the sash a little higher on all bright days, bearing in mind however; that newly transplanted plants should be kept a little warmer for a few days and shaded from the bright sun. A piece of newspaper put over the plants and under the sash, will be sufficient and will

not blow off.

Of course you have a list of varieties of seeds planted in the hotbed, with the date of planting, when up, percentage of germination etc. Such information is valuable if we also note date of transplantings and date when planted out in the garden, and when ready for table use.

The Garden

We certainly intend to have a garden again this year and we are going to profit by the mistakes of last year. Many of us had too much land and too little fertilizer, consequently our yield was not as large as we expected and somehow the weeds seemed to be always with us. This year, let us start right. 'Select a well-drained piece of land, and as soon as it is dry enough to plow prepare for the first spring plantings. Manure should be spread evenly over the land using from eight to ten cords per acre, or three bushels (if well rotted) per one hundred square feet, plowed under or spaded in thoroughly and harrowed or raked over, breaking up the lumps of soil insuring a well pulverized seed bed.

If the land has not been limed for a few years it will pay to apply ground limestone at the rate of one and one half to two tons per acre, or 10 lbs. per hundred square feet. This should be broadcasted over the land and well raked in. We are now ready for seed planting. Spinach, Onions (sets and seeds), Beets, Carrots, Parsnips, Lettuce, Peas, Salsify, and Kohl Rabi are all hardy enough to be planted at this time. Rows should be straight and of a uniform distance apart for the smaller growing vegetables, it is easier to care for, and much more attractive. In planting Carrots and Parsnips it is well to sow a few seeds of Radish in the same row, these will act as a marker and admits of cultivation between the rows before the other young plants appear.

Weeds

Resolved: That weeds are gross feeders, heavy drinkers and poor payers, undesirable boarders that we do not intend to tolerate.

Floriculture

How often de we find an up-to-date agriculturist providing the best kind of surroundings for his farm animals, having in mind the ultimate profitable returns, who has devoted very little time and less attention to the improvement of the grounds around his home. A few sadly neglected shrubs and flowers often comprises the sum total of decorative material. Think of the beautiful Roses, gorgeous Peonies, stately Hollyhocks and Delphiniums, choice Asters, exquisite Sweet Peas, and other old time favorites such as Mignonette, Pansies and lots of others. Ornamental shrubs, and vines must be considered, such a wealth of material available, at such a small outlay that will pay big dividends in pleasure and satisfaction to every member of the household, besides adding to the attractiveness of the home.

Now is the time to make preparations.

J. S.

Bee Keeping

As considerable interest is being shown in the Bee Keeping Extension Work at this School, we would like the fullest information about the colonies to be kept this year. Hand this word on to a neighbor who is keeping or comtemplates keeping bees this year.

1. Number of colonies kept.

2. Have you any bees for sale?

3. Are you going to start beekeeping this year?

4. Do you wish to buy bees?

Please send reply at once to the Director.

M. D. C.

Poultry Department

Quality First and Quantity Afterwards

25 DONT'S ABOUT BROODING CHICKS

1-Don't take the chicks out of the incubator until they are thoroughly

2-Don't feed the chicks until they are 48 hours old.

3—Don't forget that milk is an excellent feed for young chicks.

4-Don't feed sour milk one day and butter-milk the next.

5—Don't put the chicks under the brooder until the temperature is at least 95 per cent.

6—Don't put too many chicks under one hover.
7—Don't let the chicks get chilled.

8-Don't forget to look at them frequently. Don't neglect to close the curtains on a stormy night.

9-Remember that the chick lacks teeth and grit must be supplied. 10-Don't throw away infertile eggs, they make good chick feed.

11-Don't neglect the chicks, they should be fed 5 times a day for the first

12-Don't overfeed the chicks.

13-Don't forget to put sand on the brooder-house floor.

14-Don't forget to use clean litter, thus encouraging the chick to scratch for his living.

15-Don't buy the cheapest grains, they may be mouldy.

16-Don't forget to scald out drinking dishes at least every week.

17-Don't hesitate about planting Swiss Chard, Spinach, or some other seed to furnish green feed.

18-Don't forget that cabbage will make good green feed for next winter.

19-Don't forget that the chick must grow every day. 20—Don't have any batches come off after May 15th.

21—Don't forget that little chicks need lots of exercise. 22—Don't forget that the rule is "3 days to hover-break, 3 days to housebreak, 3 days to yard-break the little chicks."

23—Don't give the little chicks water if you want them to drink milk.

24—Don't forget that the little chicks will need shade soon.

25—Don't forget to use a lot of real good common sense with chickens. The poultryman recently took blood samples from 43 hens and cockerels on the School Plant.

In as much as the State of Massachusetts had no funds available for the work, the samples were sent to the Conn. Experiment Station and the following results were secured:
Scarlet Comb R. I. Red—20 samples—331/3 per cent. infected.

Barred Plymouth Rocks—20 samples—35 per cent. infected. White Plymouth Rocks—13 samples—7 per cent. infected.

The eggs from which these hens were hatched were purchased from breeders in and out of Norfolk County, so that no one farm can be blamed.

The poultryman intends to kill all the Reds and Barred Rocks and is breeding only from the White Plymouth Rocks with the infected bird removed.

Hatching eggs are \$12.00 per hundred, and day-old chicks bring 22c to 25c each, and yet the demand greatly exceeds the supply. Isn't the

outlook for 1919 a very encouraging one?

Do you belong to any local poultry association? Better join one! Only one dollar a year to join the Norwood Poultry Association. It's open to you. Some big speakers are on the program. Prof. Monahan of the Mass. Agricultural College will give a lecture on the "Poultry outlook for New England" at the May meeting.

We need you.

B. R. G.

Order Your Preserving Eggs Now

During the months of April and May eggs usually reach their minimum

price. The reasons for this are:

That the Lenten season is over; that most Poultrymen have finished hatching; and that more hens lay in these months. Last year eggs were cheapest in April when the average retail price per dozen was 40 cents; in May the price was 41 cents, while in June the price jumped to 47 cents. Eggs will probably not retail below 50 cents per dozen this year.

Don't wait too long; put your order in now.

B. R. G.

Home Making Department

What Can Be Done With Prunes

Traditions of a more or less uncomplimentary nature have caused the humble prune to be omitted from the menus in many families. The economic and dietetic value of this food is not fully appreciated or it would be served in some form more regularly on our tables.

Prunes furnish one of the best natural laxatives in our diets, they furnish sugar in considerable quantities, and are one of our valuable sources of mineral salts. They may well be included in the diet of the small child, strained prune juice being given as early as the ninth month.

Prunes are often badly cooked and are not as highly esteemed for this reason. Long, slow, cooking in plenty of water to cover them well is necessary to make them soft and juicy, no sugar being added during the process. When done, they should be moderately sweetened and allowed to stand at least twenty-four hours before serving.

They will then be plump and well seasoned to the center. Prunes of the cheapest grades are often little but skin and stone, and even careful cooking will not make them attractive. Hence, it pays to buy prunes of good quality. The addition of a few slices of lemon while cooking gives a

pleasant change of flavor.

We have failed to become acquainted with the variety of ways in which prunes may be served. Prunes keep well and lend themselves to many uses. They are excellent as a fruit, as a dessert, and as a confection. Many of the following recipes have been taken from the bulletin "What Can Be Done With Prunes" by Miss Bertha M. Wood of the Food Clinic, Boston Dispensary.

PRUNES AND APRICOT SAUCE

Soak 12 prunes and 8 apricots in three cups of water over night. Simmer for two hours or cook in the fireless cooker. Add ¼ c. sugar just before they are done.

PRUNES STUFFED WITH ORANGES

Soak and cook prunes slowly until soft. Remove the pits and insert one section of an orange in each prune.

DATE AND PRUNE JAM

½ lb. prunes, ½ lb. dates, juice from ¼ lemon. Wash prunes, cover with water, and cook slowly until soft. Remove stones. Stone dates, add a little water and cook five minutes. Combine prunes and dates. Add lemon juice and cook mixture slowly until thick. If not sweet enough, sugar may be added. In the same way, prunes may be combined with figs and figs with dates. Any one of the combinations furnishes a good filling for a sweet sandwich.

RICE PRUNE PUDDING

Mix two cups cold rice pudding or the same amount rice that has been cooked soft in milk and sweeten with a cup of stewed, stoned, and finely chopped prunes. Serve with whipped cream or the juice of the prunes, sweetened to taste.

PRUNE PUDDING

 $1\!\!/_2$ lb. prunes, $3\!\!/_4$ cups sugar, 2 cups cold water, 2 cups boiling water, $1\!\!/_3$ cup cornstarch, 1 tablespoon lemon juice, stick of cinnamon.

Wash prunes and soak in cold water. Cook until soft. Cook cornstarch, sugar, boiling water, and stick stones and cut in pieces. cinnamon together ten minutes. Remove cil namon, add prunes, and cook Add lemon juice and remove from fire at once. five minutes. serve with top milk.

PRUNE CUSTARD

2 eggs, 1/4 cup sugar, few grains salt, 8 cooked and stoned prunes, 1

Beat eggs; add sugar and milk. Cook to thick custard; serve prunes covered with custard.

PRUNE WHIP

Beat the whites of two eggs until stiff. Cut and fold in one half cup prune pulp, 1 tablespoon lemon juice, and 1/4 cup sugar. Beat until light and fluffy. Serve cold with soft custard.

PRUNE ROLY POLY

8 prunes, cooked and stoned, 2 teaspoons baking powder, 1 cup flour,

½ tablespoon fat, ½ teaspoon salt.

Mix flour, salt and baking powder together; rub fat into flour, add milk and mix to a soft dough. Roll out on a bread board to about 1/2 inch thick. Place prunes on dough and roll. Place in a pan and bake. Serve with the juice in which the prunes were cooked thickened with a little flour or with a sweetened sauce.

PRUNE AND RAISIN PIE

One large c. prunes soaked over night and simmered the next morning until soft. Remove pits and chop with ½ c. seeded raisins, add 1 tablespoon lemon juice, 1 tablespoon sugar and 1/4 t. salt. Bake between two crusts

PRUNES AS A SWEET

Twelve, uncooked, stoned prunes stuffed with prune pulp and nuts. Roll in cocoanut.

Twelve, uncooked, stoned prunes stuffed with marshmallow cut in pieces with scissors.

Making the Money Go Around

One woman has frankly admitted that she is the family clearing house, running up the bills one month, and paying them the next. This is undoubtedly true in the majority of homes and the results obtained depend upon the housewife's wise or unwise use of the family income. Micawber has so aptly said, "Annual income 20 pounds, annual expenditure 19 pounds, 19 shillings and six, result,—happiness. Annual income 20 pounds, annual expenditure 20 pounds and six, result,-misery." fashioned way of spending the allowance was trusting to chance and scrimping when the expense outran the income. One cannot cope with the present problem of meeting high prices with an income which has not increased without resorting to keeping accounts of the household expenditures.

Miss Laura Gifford of the Mass. Agricultural College has been working on the problem of simplifying the keeping of household accounts and will spend April 15 and 16 in Norfolk County giving the benefit of her investigations to women who are interested in keeping their household accounts for a year and who are looking for a simple and efficient method of making these records. Miss Gifford will be glad to meet groups of women to discuss this problem or will consult with individuals. Arrangements for a meeting with Miss Gifford may be made by conferring with the Home Demonstration Agent.

Health Programs for Children and Adults

In cooperation with the State Board of Health, two day health programs have been held during the past month in Canton and Franklin. These programs were arranged to interest both children and adults, illustrated health talks being given during the afternoon to the children and for adults in the evening. Talks on "Food and Its Relation to Health" and "Food for Children" were given to the children in the upper grades and the high school, and all meetings were open to the parents. An attractive health exhibit was furnished by the State Board of Health and useful health bulletins supplied for distribution.

A similar health program may be introduced in any town throughout he State. Communicate with the Home Demonstration if your town

would be interested in this project.

Carry On Clubs in Clothing Efficiency

Two enthusiastic efficiency clubs have been formed in Walpole and Franklin as an outgrowth of the classes in clothing efficiency conducted in February under the direction of Mrs. Ruth Reed. These clubs are organized with a president and secretary and are planning to meet once a month to complete the work which has been started and to carry out suggestions for new work which Mrs. Reed sends for each meeting. Members of the classes are now endeavoring to teach the observers who attended each class regularly, but were unable to do the practical work. The instruction which Mrs. Reed gave is so practical and valuable that it is hoped that each class member will assume the responsibility of teaching these methods to at least three other women.

Home Economics Council Meets

The first meeting of the 1919 Home Economics Council was held at the Norfolk County Agricultural School on Friday afternoon, March 7. Four members were present to listen to the report of work done on the various projects and to plan work for the coming month. Maps showing the location of the different projects throughout the county proved to be very interesting and helpful to the Council members in picturing the work that had been done. Plans were made with the warm school lunch chairman to visit the warm lunch project in the county with the Home Demonstration Agent during the coming month. Much interest was shown in the plan for a proposed itinery dental clinic to be loaned to the towns throughout the county. It was voted that the council should meet bi-monthly, the meeting to be held the first Friday in each month at the Farm Bureau office.

Junior Club Department

State · lub Leaders Stir Up County

MOVING PICTURES—SNAPPY TALKS—AND CLUB MEETINGS HELP GET 1919 CLUB WORK UNDER WAY

Twelve towns were visited—twelve moving picture shows given—and over 5,000 people reached by the State and County Junior Extension workers during the month of March in a concentrated campaign for the de-

velopment of club work in Norfolk County.

Evening meetings were held in seven towns in attempts to get the active cooperation of parents in the club work. In many instances schools were visited in the daytime and the club work explained to the children. At the evening meetings the various club projects were further explained in talks by the state leaders, and through moving pictures which told the club stories in an interesting way.

The speakers at the various meetings usually were Prof. George L. Farley, in charge of Junior Extension Work in Massachusetts; Miss Helen M. Norris, and Mr. W. F. Howe, State Assistants, Mr. V. A. Rice, State Agent in charge of Pig Club work and Mr. A. Lawrence Dean, in charge

of Poultry Club work.

Many of the programs took in local boy and girl club members who spoke on their club experiences.

Market Garden Club Awards

The county prize winners for 1918 in the Market Garden Club have been selected. Adrian Barnes of South Weymouth takes first place and Reginald Pulson of Randolph wins second position. Others considered for the prizes and awarded honorable mention were Max Greenberg of West Medway, Herbert Chase and Albert MacCombie of Stoughton, and Herbert Keene of North Weymouth. As a prize in this contest Adrian Barnes gets a week's trip to the summer camp on the campus of the Massachusetts Agricultural College at Amherst. Reginald Pulson, for second prize will receive a small gift from the Junior Extension Dept. of the college and probably a one or two day trip to Amherst next summer.

Both prize winners have been active in club work for several years. Adrian has been in the Market Garden Club for two years, keeps a flock of hens, and was recently elected President of the Norfolk County Boys' and Girls' Success Club, the county club members' organization. Reginald has been in poultry club work for three years, pig club work for two years, and has also planted large areas to potatoes and garden truck. Both club members worked well, obtained good results, and deserved the honors they

have received.

Stoughton Awards

Girls won the first two prizes in the Stoughton pig club contest for 1918. They didn't have the very largest pigs but they knew what the pigs cost to grow; how to take care of them, and how to tell about their work. The awards were made after a careful consideration of all reports and were based strictly on State Pig Club requirements; rate of gain; cost of gain; accuracy of records; work done, and the story written. The prize winners were:

1st—Ella Johnsen 2nd—Margaret Murphy 3rd—Arthur Hall

The cash prizes were recently presented to the winners by the county club leader at informal meetings in the winners' respective schools.

Ella Johnsen, first prize winner in the Stoughton pig club for 1918, is expecting a nice litter of pigs from her winning sow. They will be ready for entering in the 1919 contest.

The county club leader recently spent a few days in Washington where the possibility of raising rabbits for meat and fur purposes was discussed in conference. The growing of rabbits by boys and girls as a back yard club project is coming fast and we hope will soon be recognized as a state and national club project. As it is now, the demand for Flemish giants, New Zealand Reds, and Belgians, is steadily on the increase.

Home Economics Clubs Making Fine Records

The mid-season judging of the Home Economics Clubs has been completed in every town, and the home stretch with the final goal looms ahead.

Competition is close among the 28 clubs of the county, each one trying to finish 100 per cent. strong, and be superior in club work and club spirit. Instead of slackening as the end of the contest approaches, efforts are redoubled towards success.

Reports sent in from club secretaries to the Home Economics chairman of the County Success Club, show excellent progress on the part of the clubs with demonstrations, meetings, club songs, and cheers. Several of the clubs have taken a conspicuous part in the evening meetings which have been held throughout the county by singing their club songs or cheers, adding variety and enthusiasm to the program.

At the March meetings with the county leaders exhibit plans were discussed and definite ones worked out for each town. It is desired to make these exhibits—public meetings, urging th parents to attend, presenting programs in which the children take part. More definite plans will be issued later.

The Weymouth clubs, six in number, hold very interesting meetings and are showing exceptionally fine results. Their thorough organization with their officers and board of directors helps to contribute to their success.

An example of real achievement is the work of Helen Findlen, of Dedham, a member of our prize winning canning demonstration team; also leader and member of the "Cheerful Workers" Home Economics Club of Dedham, on Mar. 10. She reported 125 loaves of bread made since Jan. 15th, 78 per cent. of the family baking. One younger sister is also a bread making girl completing the other 22 per cent.

The following summary of several of the clubs is continued from last

month.

FRANKLIN—"Young Housekeepers," 14 members; meetings included

demonstration work, judging, and table setting.

MEDWAY—2 Clubs—"Helping Hands" and "Handy Helpers," 53 members, including 13 boys. Meetings included demonstrations, judging, parties, and a visit from Miss Norris, State Club Leader.
This club took part in the evening meeting held in Medway.

NEEDHAM HEIGHTS—"Household Guards"—17 members. Meetings included demonstrations, judging, entertainment of the members

of this club by the poultry club. This club gave club songs and cheers at the evening program at Needham.

WEYMOUTH—"Ever Ready Club"—7 girls. Meetings included demonstrations and judging, marshmallow toast, and work meetings.

Most of these clubs promise to be banner clubs and all will make a fine record for their towns.

The West Medway song was composed by Bessie Youman of West Medway, sung to the tune "'Till We Meet Again."

WEST MEDWAY

THE FOUR H'S

Always try to do your very best, With your "Hands" to help the rest, With your "Heart" to care for all With your "Head" to think of mothers And your "Health" to guard always These four "H's" mean a treat So smile and do things with 'a will "Labor and Succeed."

Old rose and silver our colors are. Each member works now very hard To win this pin of loyalness, To try to work and do our best, To fulfill our pledge we promised to. And be honest, brave, and true, The "Helping Hands" forever will To "Labor and Succeed."

Composed by Bessie Youman.

Canning Demonstration Team Invited to Washington

An invitation to the people of Norfolk County to send their prize winning canning demonstration team to Washington to enter a competition for the National prize is exciting much interest throughout the county. Mr. O. H. Benson in charge of boys' and girls' club work throughout the North and West told the people at the annual Farm Bureau meeting on January 18 that the Norfolk County teams by defeating the other county teams at the New England Fair at Worcester last fall became champions of Massachusetts. They are therefore eligible to represent this section of the country in competing with champions from the middle West and Pacific coast for the honor of

standing first in the Nation.

It will perhaps be remembered that this team is composed of Emily Hallowell of Norwood, Dorothy Healey of Needham, and Helen Findlen of Dedham. These girls have added to their records by becoming prize winners in the different projects, Emily Hallowell first in cannnig, Helen Findlen second in canning, Dorothy Healey first in bread making. In addition, Helen Findlen is a leader of a home economics club in Dedham, and Dorothy Healey has been the means of securing one hundred per cent. success in her clubs for two seasons. Emily Hallowell assisted at the Nor-

wood Canning Station last summer.

These girls are training in great earnest, conscious of the honor which has been given them and the responsibility which rests upon them as chosen representatives of club work in this State. In order to give them the support and backing of as many people as possible, an appeal has been made all over the county to raise funds to send these three girls and their chaperone to Washington for a week to be spent in work as well as play in April or May. Club members, school authorities and many adults are contributing towards the expenses. We feel assured that a hearty response will be received from each of the twenty-eight towns in Norfolk County. Any who have not been approached on the subject and desire to contribute, are asked to get in touch with the County Club Leader or the Director.

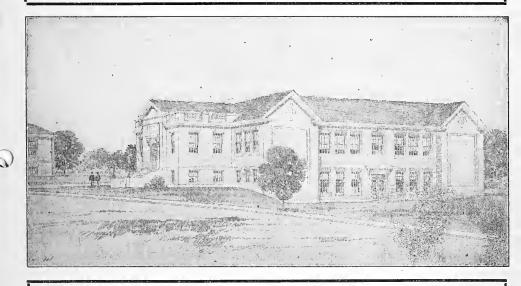
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	SCHOOL STAFF
FREDERIC W. KINGMAN	Director
BENJAMIN R. GRAVES	Poultry Husbandry
MALCOLM D. CAMPBELL	Animal Husbandry
JAMES SALTER	
ANDREW N. SCHWAB	
MARY E. SHEPARD	Sec'y and Accountant
FARM	BUREAU DEPARTMENT
	Director
WILLARD A. MUNSON	County Agricultural Agent
STELLA S. SIMONDS	
EUNICE H HOMER	Asst. Home Demonstration Agent

JOHN T. DIZERBoys' and Girls' Club Leader

Visit Your Agricultural School

A Word with Parents and Teachers

The boys and girls of the upper grades as they enter upon the last term of grammar school are in all probability thinking about the next step in their school life. They will be asked by the High School to indicate in June the studies that they wish to take next fall. Who is to help them make the choice? What considerations will determine the choice? Surely a matter as important as this should be decided only after a careful study of the value of the studies from a vocational as well as a cultural point of view.

We would like to ask the cooperation of parents and teachers in helping us to overcome the long standing prejudice against agriculture as a vocation. One way of removing this prejudice is to visit the Agricultural High School in your own county and learn at first hand something of the courses and methods followed in such a school. With prejudice removed it might be easier to decide where some of the grammar school graduates should go next fall. Too many young people relatively go into factories, stores, offices, and other indoor occupations. More are needed on the land. We realize this in war times. Isn't it equally true in peace times. How about your boy? Isn't he a good candidate for an agricultural training?

Agricultural Department

Timely Topics

DON'T PLANT SILAGE CORN TOO THICK—The percentage of ears is a very important factor in determining the feeding value of silage. The importance of varieties that come nearly to maturity has been widely emphasized, yet many men plant their silage corn so thick that the proportion of ears is small. In such cases the feeding value of the silage will be lower than it would be if the ears had had a chance to develop. If a good proportion of ears is to be secured silage corn must not be planted too thick.

POTATO ACREAGE IN AROOSTOOK COUNTY IN 1919—A question has come up in regard to the acreage of potatoes in Aroostook County for next year. The County Agent for Aroostook County states that there is no truth in the statement that they will grow no more potatoes until a minimum price is guaranteed or until the price of fertilizer is reduced. He expects, however, a considerable drop in the acreage in 1919 because of the high price of fertilizer and because the market outlook is not promising for next fall and winter.

ALSIKE CLOVER—This is the time to emphasize the merits and value of alsike clover. Quotations show that seed costs several dollars less than red clover. One pound of alsike clover will seed nearly as much ground as two pounds of red clover. It is also better adapted to many Massachusetts farms than red clover because it is more resistent to severe cold and to moist and acid soil. It could well be substituted for at least part of the red clover seed usually used in the seeding sown mixture.

EARLY SURPRISE POTATO—In his talk on potato growing, Farmers' Week, Mr. Donald MacRae, State Farm, Mass., said that the Early Surprise potato has done better under his conditions than the Irish Cobbler. This is a matter of considerable interest and importance, and it might be well worth while to try out small lots of seed beside the Irish Cobbler.

PLANT POTATOES OF THE RURAL TYPE CLOSE—Potatoes of the Rural type, such as Dibble's Russett, Carman No. 3, Petoskey, etc., should be planted a little closer than Green Mountain potatoes. The reason for this is that they have fewer plants and set fewer tubers per hill, and are apt to grow coarse unless they are planted rather close in the row. It seems safe to advise that varieties, of this type, be planted 3 to 4 inches closer in a row than Green Mountain potatoes. Varieties of this type grow upright and are easier to spray than Green Mountain.

CORN GERMINATION TESTS—The average per cent. of germination of the twenty-nine 40-ear samples sent to the college for the Farmers' Week Show was 96%. The Dent exhibits averaged 97.7% and the Flint exhibits 95.4%. The average germination of the twenty-nine 30-ear samples at the Essex County Farmers' Show was 98.4%.

The seed conditions of corn is generally very good this spring. A few lots of poor germinating corn have been noticed. These included Flint corn with blistered kernels and Dent corn that had not dried out and showed their poor seed condition when the kernels were removed.

Get Your Field Corn Seed Near Home

It is a matter of common knowledge and has been demonstrated many times by Experiment Stations that ordinarily field corn varieties grown near home do better than varieties imported from a distance. New varieties often improve after they have been grown in a community a few

years or after they have become adapted.

This is of special importance in Massachusetts where the conditions that influence the growth of corn are often quite different in 'a community or in neighboring communities, due to the difference in soils, elevation, air drainage, etc. In Massachusetts we find many local varieties of corn which have been grown on one farm or in one community for some years and such varieties are ordinarily best for that community. Through years of selection these varieties have become acclimated.

The following data taken from results secured at the Nebraska Ex-

periment Station, shows the value of using acclimated corn:

Seed from other states
Seed grown in state
Local seed grown near Experiment Station 48.8 bu.

The average result of twenty-one cooperative tests in Nebraska was as follows:

Yield per acre
Native varieties 30.5 bu.
Varieties not native 24.1 bu.

The Ohio Station reports that in variety tests local varieties have done better than those from other parts of the state.

The Rhode Island Station reported after testing fifteen different varities for six years that only one foreign variety surpassed the Rhode Island White Cap Flint in yield. However, when the market condition and the shrinkage in the crib were considered the native White Cap Flint was found to be the best adapted to Rhode Island conditions.

The following conclusion was drawn from the corn variety demonstration tests conducted in Berkshire County in 1918, "Seed grown and selected on the home farm for a number of years has, in almost all demonstrations been equal to or better than seed from other sources."

The above results indicate that it is a good practice to select seed corn from your own crop and care for it so that it will germinate well. Results are often disappointing when seed from a bumper crop grown in another locality is used. Given an adapted variety and a good stand, the productivity of the soil is the most important factor in determining the yield of corn in a normal season.

Soy Beans for Silage

A RICHER SILAGE-With the high price of grain that has come in the last few years, the question of growing a richer silage has come to the The richer any roughage is, the less high priced grain need be purchased.

The practice of supplementing corn silage with soy beans started some years ago and has already developed to a considerable extent in the state. in the silo, but mixed with corn they Soy beans do not keep well, alone

make a nutritious and palatable silage.

There has been considerable increase in the acreage of soy beans grown in Massachusetts for supplementing corn silage in the last few years.

FEEDING VALUE-The crop has ordinarily been satisfactory and when the silage is fed the influence on milk flow is readily noticed. Farmers who have fed soy beans and corn silage for sometime find that often the grain in the ration can be reduced one-half and some have made greater reduc-It has been suggested that soy beans add something to the ration which a chemical analysis does not show. The crop seems to be established in Massachusetts as it is generally satisfactory to the farmers who have grown it and this is, of course, the final test for any crop.

CULTURE—A majority of the farmers who have followed this practice have grown the soy beans with corn. This is a labor saving practice and the expense of getting the beans is largely the cost of seed and the extra expense of harvesting both crops. It is too much to expect that a full crop of both soy beans and corn will be grown. In general, it has been found that the yield will be about the same as that of corn alone and a

richer silage is produced.

The Medium Green Soy Bean seems best adapted to Massachusetts. Soy beans should be inoculated because a richer feed is produced and they cannot use atmospheric nitrogen unless they are inoculated. dirt seems more likely to produce satisfactory results than the use of com-

mercial cultures.

Soy beans grown alone are planted in rows 30 inches apart with the beans 2 to 3 inches apart in the row. Three to four pecks of seed are One load of soy beans is put in the silo with each three required per acre. to four loads of corn.

The Standard Bordeaux Mixtures

The use of Bordeaux Mixture for the control of blight is being used more and more each season. In making Bordeaux at home use 4 pounds of copper sulphate, 4 pounds of quick lime and 50 gallons of water.

considered a standard formula, and if applied thoroughly at the proper

times, gives the desired results.

When purchasing ready made Bordeaux Mixture preparations, the following table made available by the Insecticide and Fungicide Board of the United States Department of Agriculture is very useful:

Bordeaux formulas corresponding to the strength of Bordeaux mixtures

produced when commercial preparations are diluted as directed.*

	lic copper ared on label	Approximate formula of Bordeaux mixture produced where the dilution is at the rate of 1 pound to —			
		10 gallons	8 gallons	5 gallons	3 gallons
1.5 pe: 2	r cent.	0.3-0.3.50 0.4-0.4-50 0.5-0.5-50 0.6-0.6-50 0.7-0.7-50 0.8-0.8-50 1.0-1.0-50 1.2-1.2-50 1.4-1.4-50 1.6-1.6-50 1.8-1.8-50 2.0-2.0-50	$\begin{array}{c} 0.4 - 0.4 - 50 \\ 0.5 - 0.5 - 50 \\ 0.6 - 0.6 - 50 \\ 0.7 - 0.7 - 50 \\ 0.9 - 0.9 - 50 \\ 1.0 - 1.0 - 50 \\ 1.2 - 1.2 - 50 \\ 1.5 - 1.5 - 50 \\ 1.7 - 1.7 - 50 \\ 2.0 - 2.0 - 50 \\ 2.4 - 2.4 - 50 \\ \end{array}$	0.6-0.6-60 0.8-0.8-50 1.0-1.0-50 1.2-1.2-50 1.4-1.4-50 1.6-1.6-50 1.9-1.9-50 2.3-2.3-50 2.7-2.7-50 3.1-3.1-50 3.5-3.5.50 3.9-3.9-50	1.0-1.0-50 1.3-1.3-50 1.6-1.6-50 2.0-2.0-50 2.3-2.3-50 2.6-2.6-50 2.9-2.9-50 3.3-3.3-50 3.9-3.9-50 4.6-4.6-50 5.2-5.2-50 6.0-6.0-50
11 " 12 "	"	2.2-2.2-50 2.3-2.3-50	2.7-2.7.50 2.9-2.9-50	4.3-4.3-50 4.7-4.7-50	7.2-7.2-50 7.8-7.8-50

*These formulas are explained as follows: The formula 0.3-0.3-50, means that in 50 gallons of the diluted spray there is 0.3 of one pound of copper sulphate and 0.3 of one pound of lime. The formula 4-4-50 (which is the standard strength) means that in 50 gallons of the diluted spray there are 4 pounds of copper sulphate and 4 pounds of lime.

Hotbeds

Many of the plants that were started early, such as Cabbage, Cauli-flower, Lettuce, etc., are now planted out of doors, or should be as soon

as the land is in good condition.

The Tomatoes, Egg-plants and Peppers should be gradually hardened off, preparatory to planting out about the twentieth of the month. If the nights are chilly, with tinges of frost in the air, it would be better to wait a few days longer, or until the land is warmer and the weather more settled.

The Gardens

The past month saw a lot of planting of the hardier vegetables. In many instances they will require hoeing. Do not neglect this important

operation, you are not only destroying the weeds when they are weakest, but also admitting the sunlight and air, without which, plants would make a poor showing. Stir the soil regularly. About the 10th to the 15th of the month make a planting of Sweet Corn, Bush and Pole Beans. Corn may be planted each two weeks up to July 1st if wanted. Bush Beans may also be planted at intervals of two or three weeks up to July 15th. About May 20th, Lima Beans, Cucumbers and Melons may be planted.

If in previous years the crows have pulled up the corn soon after planting, making it necessary to replant, why not discourage them? Try this method, it is effective. Put one (1) quart of seed corn into a tin can that can be covered, add one (1) tablespoonful of creosote, shake thoroughly for a few moments or until all of the kernels are coated. Corn

is then ready to plant.

Plant a few rows of early potatoes; Irish Cobbler, Early Bovee and Early Rose are good varities. Get the best seed Potatoes even if it costs a little more, it usually pays well in increased yield. Treat the Potatoes before cutting them for planting with Formalin 40% eight (8) ounces or one pint, to fifteen (15) gallons of water. Soak the potatoes in this solution for two hours, dry before planting. This is for scab.

A Few Potato Hints

Prepare the land thoroughly before planting.

Make the furrow deep enough so that the seed piece will be 5 inches

deep after the furrow is filled up.

Plant pieces (about 1¼ ounces in weight) 15 inches apart, and have the rows 3 feet apart. Cover the seed piece about 2 inches subsequent cultivation will fill up the furrow.

Harrow the soil before the plants appear above ground, thus destroying

the first crop of weeds.

First spraying:

When the plants are 3 or 4 inches high, spray with Bordeaux mixture,

this will act as a deterrent to the Flea Beetle.

Second spraying: In about two weeks, adding arsenate of lead 1½ ounces to each gallon of Bordeaux, insuring death to the potato bug. Don't wait until after the bugs are at work. Be on the job with the poison waiting for them.

Spray at least four or five times during the season. It is good crop

insurance

Frequent, shallow cultivation, conserves soil moisture.

Do not plant late potatoes too early, as a rule the yield is light and the tubers small.

Never follow Potatoes with Potatoes. Rotate crops.

Fruit

Strawberries that were mulched last fall should have the mulch opened up so that the crown of the plant can put forth its leaves. This applies especially to the hill system of cultivation. All space between the plants should be covered up, lawn clippings are ideal for the purpose if the strawberry bed is not too large, otherwise use straw or meadow hay. This keeps the fruit clean and free from grit.

Orchard Spraying

It is now pretty generally understood that to get good fruit, the trees must be systematically sprayed. Various kinds of chewing and sucking insects must be looked after, besides the prevention of funguous diseases. Such work should be given careful attention and thoroughly done.

Floriculture

Hardy perennials will be making a good start in growth by this time if they have been well cared for. If they have been neglected, it is not too late to spread a liberal amount of well rotted barnyard manure around them, digging it in lightly. Sweet Peas should be coming up nicely; have the brush in position before the plants get too high.

During the month, seeds of nearly all of the annuals may be planted where they are intended to flower, most of the seeds being small, care

should be taken not to plant them too deep.

Gladioli are among the easiest grown plants, and their elegant spikes of bloom lend themselves very effectively for decorative purposes. Gladioli require from twelve to fourteen weeks between planting and blooming. Call on your local florist, he will have plants of many kinds to select from that were started early.

Next month being the month of roses, they must be kept free of insect pests while they are growing. Spray occasionally with Whale Oil Soap, one (1) pound to eight (8) gallons of water, or Black Leaf 40, using one (1) teaspoonful to one (1) gallon of water adding one fourth (1/4) of one (1) ounce of common soap. Be sure to reach the under sides of the leaves.

Keep the soil stirred between all kinds of plants keeping weeds in

check, conserving soil moisture and promoting growth.

J. S.

Grow Your Own Poultry Feed

The price of grain has advanced and the price of eggs has decreased. The decrease in the price of eggs, of course, is not unusual, because eggs are generally cheaper after Easter. The increase in the price of feed is

rather unusual.

Perhaps this rise in grain prices has set some of us thinking and the question arises, "What can we raise for our hens?" Corn, oats, buckwheat, rye and even wheat have been raised with some degree of success in Norfolk County. Here at the school, corn, oats, and wheat were raised successfully. The wheat was never thrashed, the hens did that, and up to the first of April' wheat was left out of the ration. The hen got her own wheat from the straw thrown into the hen houses.

Certainly, if corn can be raised here at the school, the poultrymen ought to try a little of it this season on their own farms. Up in Vermont the farmers are raising 75% of their own corn, and they have a shorter

growing season than we do here in this county.

Mangels were raised on the school farm, and are still being fed to This year cabbage, mangels, rape, and swiss chard will be The swiss chard and rape will be used during the grown for the hens. summer while the cabbage and mangels will be stored for winter use.

The double yarding system will be used on the poultry plant. Yard number one has already, on April 2nd, been sown to oats and cow peas with a few hills of corn to be planted for shade. By the time the hens have ranged over yard number two and eaten up all the green feed yard the hens will not only have clean, sweet ground free from disease but will also have a feast of green feed during the entire season.

Blood Spots in Eggs

During the months of April and May the poultryman gets the largest number of eggs and the largest number of eggs containing blood spots. When you find a small red spot in an egg it does not mean that the egg is bad. The explanation of this fact is that the sack which encloses the yolk while still attached to the ovary sometimes splits a little too soon causing a small This is just a drop of blood which passes along with the yolk and is enclosed in the shell. There is no cure for this trouble. has been said that blood spots occur more frequently with Leghorns which are being forced for egg production.

Broody Hens

Our patience is sometimes sorely tried with broody hens. Many times putting the hen in with a strange flock will make her forget about being broody; sometimes letting her out on free range will serve the same purpose.

Culling

Are you keeping your flock culled down? How about getting rid of those roosters. Do you realize that a rooster eats twice as much grain as a laying hen?

Shipping Broilers to Market

Have you shipped any broilers to market yet? Squab broilers weigh 34 to 1½ lbs. each, medium broilers 1½ to 2½ lbs. each, and large broilers from 2½ to 3½ lbs. each.

Remember--"The early Bird gets the Worm."

B. R. G.

Bee Keeping

With the beginning of the nectar flow, the need of stimulative feeding to force brood rearing is past.

In a strong colony the brood should expand from the normal three

frames to twelve frames. Give plenty of room to allow for this expansion by adding another hive body of frames, preventing a crowding of the brood

chamber which would induce swarming.

Have a spring cleaning during the middle of a warm day, removing poor combs, scraping out all accumulation of propolis, and finally locate your queen and clip the tip of one wing to prevent her flying away during swarming.

For Sale

Baby Chicks and Hatching Eggs. Rhode Island Reds and White Rocks. Chicks at \$22.00 per hundred. Hatching eggs \$10.00 per hundred. The Schreiter Poultry Farm.

258 Main St., Walpole, Mass.

(Tel. Walpole 193-3.)

Home Making Department

What We Have Been Told About the Warm School Lunches

COUNTY CHAIRMAN OF WARM SCHOOL LUNCHES VISITS SCHOOLS WITH HOME DEMONSTRATION AGENT.

There seems to be no question of the value of the warm school lunch in the minds of the people who have watched it work out. During the past month, the county chairman of the warm school lunch has visited with the Home Demonstration Agent the warm lunches in some of the schools in Norfolk County. Some schools are serving not more than twenty pupils with a cup of cocoa while one of the larger schools is serv-

ing 75 pupils a day.

In one school where the janitor takes an active interest in the preparation and serving of the lunch, we were told by him that before cocoa was served with the lunch that quantities of good food such as sandwiches, cake, etc., were thrown in the waste basket each noon. Since the introduction of the cocoa no food is thrown away. The principal in one Grammar School said that previous to the serving of the cocoa with the lunch, several of the boys had been buying their lunch at a nearby bakeshop. Now they are bringing their lunch from home so that they can have a cup of cocoa with it. One teacher has noticed that the spirit in the school has improved since the warm lunch has been served and attributes the change to this institution.

Although no data has been obtained regarding definite physical gains among the children, one teacher has found that a daily headache, which one child was experiencing, has disappeared since the warm cocoa has been served at noon. These favorable criticisms show that the warm lunch for the school child is demonstrating its value as a factor in im-

proving the physical, mental, and moral conditions in the schools.

Girl Scouts Prepare Themselves to Assist in an Emergency

FUTURE EPIDEMICS WILL FIND MILLIS SCOUTS PREPARED TO COOK FOR INVALIDS

In order to be a well equipped Girl Scout, one must be prepared to help out in any emergency. During the epidemic of influenza just passed, the Girl Scouts of Millis felt that they could have been a real help in the community had they had some knowledge of preparing foods for invalids. This led the scout leader to make a request of the Home Demonstration Agent for a course in Invalid Cookery for her troop. Six lessons in preparing and serving foods to the sick have been planned and two lessons have already been given. The class is held in the vestry of one of the local

churches and although all conveniences are not available, it has been

possible to carry on the work in a simple way.

A course of this nature should be of value in the training of every Girl Scout and can well be considered by every troop in planning its activities for the coming year.

This Is the Season for Preserving Eggs

PRUDENT HOUSEWIVES ARE BUYING EGGS IN QUANTITY NOW FOR USE NEXT WINTER

Preserving eggs in water glass is an annual event in many homes for it has proved itself to be a practical economy in household management. For various reasons eggs are cheaper during April and early May than they are at any other time in the year. Infertile eggs should be bought in quantity at this time and put down in stone crocks in a solution of water glass. Eggs properly preserved in this way will keep in splendid condition for a year and will help to cut down the grocery bill.

Complete directions for preserving eggs in water glass appeared in the March, 1918, issue of this bulletin. These directions may be obtained by

writing to the Home Demonstration Agent.

Following is a list of names and addresses of producers in Norfolk County from whom eggs may be purchased in quantity for preservation:

B. C. Copley, York Brook Farm, Canton.

Z. A. Norris, Needham.

Mr. E. H. Gilbert, Stoughton.

All Surplus Milk Can Be Utilized

BY MAKING IT INTO COTTAGE CHEESE IT CAN BE SERVED IN A VARIETY OF WAYS

A surplus of milk in Massachusetts and approaching warm weather should not indicate that any milk will be wasted because of these conditions. Any excess of milk whether sweet or sour can be made into cottage cheese with little difficulty and a concentrated food which may be served in a variety of ways may be had.

Directions for making cottage cheese were given in the October, 1918

number of this bulletin. This bulletin may be had upon request.

The following recipes taken from the United States Dept. of Agriculture bulletins may be suggestive in using cottage cheese:

COTTAGE CHEESE OMELET

2 eggs 1 T. chopped pimientos 1/4 t. salt 2 T. milk

¼ t. salt2 T. milk4 T. cottage cheese½ t. soda

Beat the yolks and whites of the eggs separately. Add to the yolks, the salt, milk, and cheese with which have been blended the pimientos and fold in the stiffly beaten whites. Pour into a hot frying pan in which has been melted ½ T. fat. Cook the omelet slowly until the egg has set. Place in the oven a few moments to finish cooking and fold over the center. Garnish with parsley. Other seasoning, such as chopped parsley, green pepper, and minced ham may be used.

BAKED BREAD AND CHEESE

4 medium slices of bread

or 2 c. cold cooked rice (dry)

1 egg yolk or an egg white

2 cups milk 1/4 t. salt

Cayenne pepper

butter

1 c. cottage cheese

½ t. soda

½ t. onion juice parsley and

pimiento

Butter the bread and cut the slices in squares or triangles. layer, buttered side down, on the bottom of a large shallow buttered baking Dissolve the soda in a little of the milk, and with it mix the cheese to a soft cream. Add parsley and pimiento or sauce if desired. a thick layer of the cheese lightly over the bread, and cover with the rest of the bread, buttered side up. Beat the eggs well, mix them with the milk and seasonings, and pour them over the bread. Bake in a slow oven till a knife blade thrust into the custard comes out clean. If the milk is heated and added gradually to the beaten egg, and the baking dish is set in a pan of hot water, the custard cooks more quickly and is less liable to curdle through becoming overheated.

BAKED EGGS WITH CHEESE

4 eggs

 $^{2}/_{3}$ to 1 c. cheese 1 c. fine, soft stale ¼ t. salt

few grains of Cayenne pepper

bread crumbs

Break the eggs into a buttered baking dish or into ramekins and cook in a hot oven until they begin to turn white around the edges. the mixture with crumbs, cheese and seasoning. Brown in a very hot oven so that the cheese is brown without the eggs being cooked too much. White sauce may be put over the eggs before the cheese mixture is added.

CHEESE FRITTERS

4 T. cheese 1 c. cooked rice

½ c. milk

½ t. onion juice if desired

1/4 t. salt dash of paprika

1 egg

Mix rice, cheese, milk, paprika, salt, and onion juice. Beat the egg well, and mix with the other ingredients. Drop by spoonfuls on a slightly greased skillet and turn when brown. Serve plain or with jelly

HASH BROWN POTATOES WITH COTTAGE CHEESE

Chop cold boiled potatoes fine and season with salt, pepper, and onion Turn upon a hot frying pan slightly greased with savory fat and cook the potatoes slowly without stirring until they are brown. generous quantity of cottage cheese with cream or milk till it will spread Mix with it any desired seasoning such as chopped parsley, or pimientos, a little left over ham or bacon and spread it over the potatoes. Let the mixture stand long enough to warm and soften the cheese. Then fold over the potatoes like an omelet. Turn it up on a hot platter and serve at once.

NOTE: Acid flavor of the cheese may be neutralized by adding 1/4 t.

of soda for each cup of cheese.

Recipes for using cottage cheese in salads and sandwich fillings will appear in next month's bulletin. The following government bulletins may be had by writing the Home Demonstration Agent:

Cottage Cheese Dishes

Neufchatel and Cream Cheese: Farm Manufacture and Use. How to make Cottage Cheese on the Farm.

Turning Junk Into Thrift Stamps

WITH THE HOUSE CLEANING SEASON AT HAND, WOMEN CAN TAKE AN ACTIVE PART IN THE THRIFT CAMPAIGN

Through the efforts of the Salvage Bureau in Boston, the women throughout the State are being persuaded to make a very careful inventory of their stock on hand at house cleaning time. It is not the purpose of this Bureau to encourage one to throw away all material which has no immediate use, but to sell all waste rags, rubber, old metals and paper to rag men who will give thrift stamps in payment. Many junk collectors have already signified their willingness to cooperate in furthering the sale of thrift stamps through salvage and nearly every town has at least one collector who will give thrift stamps for junk. If you are in doubt as to the name of the junk collector in your locality who is cooperating in this movement, you can get this information by writing to Mrs. H. P. Whittington, New England Director of Salvage, 95 Milk St., Boston, Mass.

An approximate list of prices which the junk man will pay has been assembled by the Salvage Bureau and although subject to change it will be of help to the housewife in estimating the value of her material for

salvage

PRICE LIST

Mixed Rags		1½ & 2c per lb.
minou itubs	Rubber Boots and Shoes	3 to 5c per lb.
	Inner Tubes (mixed)	6 to 12c per lb.
Scran Rubber	Bicycle Tires	
ocrap rabber	Automobile Tires	1½c per lb.
		1 to 3c per lb.
Old Metals	Copper	8 to 10c per lb.
	Brass	5 to 6c per lb.
	Lead	$2\frac{1}{2}$ to 3c per lb.
	Zinc	$2\frac{1}{2}$ to 3c per lb.
	Pewter	10 to 20c per lb.
	Aluminum	12 to 14c per lb.
	Tinfoil (pure)	25 to 30c per lb.
	Leadfoil	3½c per lb.
Paper Stock	Folded News	25 to 30c per 100 lb.
	Mixed Paper	15c per 100 lb.
	nimod i upoi	
		\$3 per ton
	Old Magazines	30 to 50c per 100 lb.

Old Magazines 30 to 50c per 100 lb. To tell the difference between tinfoil and leadfoil, rub tinfold on a piece of white paper; if it makes a mark, it is not pure tinfold. Pure tinfoil has a bright silvery color like a new silver coin, while leadfoil has a bluish east.

Junior Club Department

New Junior Publication

With this copy of the Norfolk County Agricultural and Home Making Bulletin there is being sent a sample copy of "Norfolk County Club News", This publication is being started as a the boys' and girls' publication. result of the demand by club members and leaders to know what other workers are doing. Its purpose is to further club work by making timely suggestions, by giving encouragement to clubs and members by noting their achievements, and by giving from time to time pictures, stories, records, etc. of club work in other places.

Club news is primarily for and of the club members. Local club secretaries in their reports to the Junior county committee chairmen furnish a great deal of interesting information for other club members which will be printed from time to time.

Members of the Home Economics, Canning, Pig, Poultry, Market Garden, Calf, Corn, Potato, and Rabbit clubs can all find something of interest for Adults who are interested in the boys and girls work will also be interested in some of the stories of achievement.

"Club News" will be sent out monthly. If you do not receive a copy,

write for it.

County Club Leaders Organize

"Massachusetts Federation of County Club Leaders" is the name of the recently formed organization of county and assistant county club

leaders.

The organization was perfected at a meeting in Worcester, March 25th. The purpose of the federation is "to discuss problems relating to Junior Extension activities and to aid in theadvancement and improvement of these activities within the state and its several counties."

Officers elected were:

President R. P. Trask, Club Leader for Middlesex County. Sec'y, Treas .-- J. T. Dizer, Club Leader for Norfolk County.

The plan is to hold at least two regular meetings yearly, one in February and the other during the summer camp week at Amherst. Special meetings will be held whenever the leaders feel the need of them.

It is hoped that this organization will help club work a great deal by promoting discussions of all phases of the work and by giving an exchange

of new ideas.

Demonstrations

Demonstrations—the showing others how to do something—should be a big part of our junior work.

How do our club members demonstrate? In two general ways. 1st-By doing a good piece of actual club work and having it seen. 2nd—By training on some special phase of work and showing this as a "staged" demonstration, as in our canning and poultry demonstration teams.

Every club member can demonstrate the first way. Nearly every member can be a member of a demonstration team.

We need more locally trained demonstration teams. Information is available if you are interested.

Canning Club Season Soon to Open

With the planting of the gardens, one naturally begins to think of the good things we shall have to eat, and then our thoughts turn to the rows of now empty jars on the cellar shelves. Surely those who have once enjoyed the flavor of home canned products will never again be satisfied with the commercially canned ones. Many people have been converted to cold pack canning by the exceptionally fine flavor of the products.

The canning club season opens May 15th, and in many towns past club members are already clamoring for the work to start. The requirements this year are practically the same as last, a few minor changes having been made, which are as follows:

The requirements of 24 quarts is changed to 24 jars, size not specified;

The canning of greens is encouraged, but not required;

Jars will not be opened at the final exhibit.

In addition a second year's advanced course is offered to those who suc-It is entirely voluntary; the second cessfully completed the first year. year members being permitted to repeat the first year's work if they desire.

Now is the time to plan on joining.

For information regarding first or second year's work write to the County Leader.

National Club Leader Visits Norfolk County

It is always an inspiration to meet the State and National Leaders in club work, and an additional opportunity to become acquainted was given on April 14, 15 and 16, when Miss Grace Goodpasture of Washington,

Assistant National Club Leader, visited this county.

This was the first visit which this National Club Leader has paid Massachusetts, and her assistance and suggestions for further development of the work were most welcome. Since it was not quite time to schedule many of the Home Economics Club exhibits, only one was held during her visit. The Walpole "Work and Win" club held its exhibit on Monday, April 14th, the special feature being an open club meeting to which the parents were invited. when a short program was presented.

The Canton and Dedham Home Economics clubs held special meetings so that our guest might see the method of conducting business meetings.

Being an expert on training demonstration teams, Miss Goodpasture attended a practice canning demonstration, and was particularly helpful. It is hoped that we may again have her in Norfolk County the early part of May and that some of our Home Economics club exhibits may be scheduled for that time.

Home Economics Club Exhibits

The concrete results of club work are always shown in the exhibits held at the close of the contest when the products made by the club members are shown to the public, and prize cards awarded. This year it is the plan to hold a short program by the club members in many towns, either afternoon or evening. The public is cordially invited and it is hoped the young people will have the encouragement of a large number of adults present at the exhibits and programs. The following dates have been set in the different towns:

Monday Thursday Friday Monday	April	14—Walpole 17—Dedham—Riverdale 18—Needham 21—Bellingham	P. M P. M. P. M. P. M.
Monday	"	21—Franklin	Evening
Tuesday	•••	22—Norfolk	P. M.
Tuesday	,,	22—Foxboro	A. M.
Wednesday		23—Dedham—Quincy School	P. M.
Wednesday	**	23—Dedham Manor School	Evening
Thursday	"	24—Canton	P. M.
Monday	"	28—Randolph	Evening
Tuesday	"	29—Medway	P. M.
Wednesday	,,	30-Medfield	P. M.
Thursday	May	1—Millis	Evening
Friday	**	2—Holbrook	P. M.
Tuesday	,,	6—Weymouth	P. M.
Wednesday	,,	7—Stoughton	P. M.
Thursday	,,	8—Weymouth	P. M.

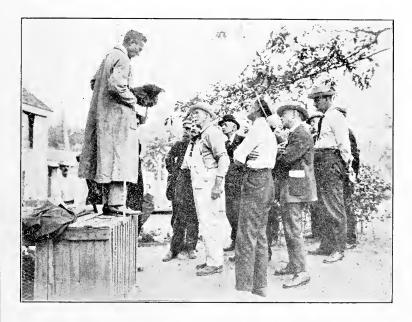
Local leaders will give information where exhibits are to be held. The Home Economics Club Contest is over, and we are hoping for many banner clubs. The records and stories will not be in until next month, but the clubs as a whole stand near completion. Every club with the exception of one town has been visited twice by the county leader or assistant, mid contest judging meetings held, and exhibit plans discussed.

From the reports of the secretaries sent in to the Success Club Home Economics Chairman, the following summary of a few of the clubs has

neen compiled.

Canton—"Good, Better, Best" club—19 members, 5 meetings, cheer. Dedham—"Live Wires"—11 members, 5 meetings, poem, cheer. Medfield—"Won't Quit" club—14 members, 3 meetings, song. Weymouth—"Little Women"—18 members, 6 meetings, song, cheer.

NORFOLK COUNTY AGRICULTURAL AND HOME MAKING BULLETIN



POULTRY CULLING DEMONSTRATION AT JOHN M. DENNIE'S, NEEDHAM

PUBLISHED BY

THE NORFOLK COUNTY AGRICULTURAL SCHOOL, WALPOLE, MASS.

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AUGUST, 1919

NO. 20



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VOL. II

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TIMELY TOPICS

STATE GRANGE FIELD DAY

The Massachusetts State Grange will hold an all day summer field meeting in cooperation with Norfolk Pomona, No. 27, at the Norfolk County Agricultural School, Friday, August 22. This will be a get-to-gether day of all the grangers in this section of the State.

We expect State Master Sherman J. Lowell of New York or National Lecturer John C. Ketcham of Michigan to be with us. Arrangements are in the hands of a committee from Norfolk Pomona and a fine program is assured. Dinner will be on the basket picnic plan, ice cream and coffee free.

Come and bring your friends. Let us make this the largest Field Day of the series.

COUNTY SCHOOL TO HAVE A BARN AND DAIRY

Plans are being drawn for a plank frame barn 40 feet by 80 feet to be erected this fall with sheds for storage of fertilizer, tools, and farm machinery.

The barn will be provided with stanchions for seventeen head of cattle, a bull pen, pen for calves and stalls for four horses. Arrangements have also been made for a grain room, wash room, storage cellar and packing room for fruits and vegetables.

The milk room is to be in a small building separated from the barn, thereby doing away with all objectionable odors and making it sanitary in every sense of the word.

The manure from the barn is to be stored in a concrete manure pit which will be connected with the barn by a carrier.

When this barn, with the sheds, is completed it will give an opportunity for removing the unsightly shed now used for storage thereby making the farm look as a prosperous Norfolk County farm should.

The cut on the cover shows the interest taken by Needham poultrymen in a culling demonstration given at Mr. John M. De nie's, August 26, 1918. This was one of a series of eleven demonstrations, all of which were well attended and proved valuable enough so that requests have been made in several of the same towns to repeat them again this year. See the schedule on another page and if you are a poultryman, plan to be present at one of the meetings.

The Canton School Board has employed a canning expert, and is conducting a course in canning for pupils of the schools and for any women of the town who can attend. This is not a community canning centre for putting up vegetables but a place where instruction can be had that will help the home canner to be more efficient and secure better results.

Mr. S. Knowles, Garden Supervisor of Canton, reports that all the land that was planted to gardens last year has been planted this year with some in ardition. If more land had been available near the centre of the town, it would have been used. Mr. Knowles is also carrying on a demonstration garden and a potato variety test in which he is comparing 8 varieties of potatoes, so that the gardeners of Canton may become acquainted with the best potato for the section. Notes will be taken during the growing seaso 1 and at harvest time the crops produced by the several varieties will be weighed and the results made available.

Mr. I. I. Margesson of Westwood has fini hed harvesting a fine crop of currants and cherries. His yield of currants was over 15,000 quarts and cherries 5,000 lbs. Fruit growing on Mr. Margesson's farm is on the most intensive plan and every foot of his ten acres is made to produce. Growing fruit in this way makes necessary the adoption of every practical method known to fruit growers in order to get results.

Mr. J. J. Sanderson of Medway has set a new strawberry bed and from the good start it has made, a fine crop should be harvested next spring.

The following farmers are testing the Dibbles Russet potato in comparison with green mountain: F. B. Brooks, Holbrook; Sylvester Smith, Plainville; J. G. Sanderson, Medway, and Frederick Almy, West Wrentham. Home grown and northern grown seed are also being tested. We hope to

measure the results this fall and make the information available to any who are interested in potato growing.

One of the largest and finest fields of potatoes we have seen is being grown by L. E. Mayo of Medfield. The seed was obtained from a certified field in Maine. Any one growing potatoes, would find it worth while to visit this field and talk with Mr. Mayo regarding his methods.

The demonstration apple orchard on the farm of Mr. C. A. Wilson, West Medway, is bearing its first evep of fruit this year. This orchard has been grown by the continuous cultivation system, the trees have made good growth and are now of a size large enough to carry a profitable crop. Mr. Wilson is always glad to receive callers and take them through his orchards. One season he conducted 99 interested fruit growers through them, explaining and answering questions about the methods he uses.

On July 22d, Messrs. F. A, and E nest Parmenter, J. S. Lovejoy, and Frank Bacon of Franklin visited the poultry plant of Mr. F. H. G. Morse in Stoughton. Mr. Morse took great pains in explaining his method of handling poultry to the visitors, as he conducted them through his incubator cellar, brooder house, rearing range and laying houses.

When one visits the poultry farm of Mr. Morse, he finds a farm which is a proven success in the poultry busi ess. Mr. Morse is getting remarkable results, his hatches in a mammoth incubator this year have been over 70% and the death rate of chicks was practically negligible. Besides selling several thousand chicks, Mr. Morse kept two thousand, from which he expects to raise 1000 pullets, the remainder have been going to market as broilers at good prices. Mr. Morse has been in the Poultry business for seven years and has had a continuous success.

The three pure bred Berkshire sow pigs, purchased by the Agricultural School last August have grown into three fine sows. They are expected to farrow during the latter part of August and early September.

The young apple orchard set out by the students of the Agricultural School a year ago last spring and now in its second growing season is making a remarkably fine growth. A cover crop of alsike and red clover is being sown in order to check further growth, that the wood may ripen for the winter. The cover crop will also furnish bumus and add some nitrogen to the soil. When in the neighborhood of the school, stop and see the orchard.

We are receiving inquiries from prospective students and we would extend to them and to anyone interested as well, a most cordial invitation to visit the school and look over the buildings with their equipment and facilities for teaching agriculture.

AGRICULTURAL DEPARTMENT

POULTRY CULLING DEMONSTRATION ARRANGED

During the week of August 18th a series of poultry culling demonstrations have been scheduled at the following poultry farms:

August 18, 2.30 P. M., Wellesley College Poultry Yards, Wellesley.

- " 19, 2.30 P. M., E. B. Parmenter, Union & King Sts., Franklin.
- " 20, 10.00 A. M., H. J. Hope, York St., Canton.
 - 20, 2.30 P. M., Z. A. Norris, Dedham Ave., Needham.
- " 21, 10.00 A. M., B. H. Wells, 225 Plain St., Stoughton.
 - 21, 3.00 P. M., Samuel Law, Mill St., Foxboro.
- " 22, 3.30 P. M., Herbert L. Mitchell, North St., Medfield.
- " 23, 2.30 P. M., Luther S. Files, Pleasant St., Lovell's Corner, East Weymouth.

The demonstrator will be from the poultry department of the Massachusetts Agricultural College. Besides giving the culling demonstration, he will also discuss troublesome poultry questions that any of those present may have to present. It is expected that he will also make an announcement in regard to testing breeding stock for white diarrhea.

If you are a poultryman, large or small, it will pay you to be present at one of these meetings. Should you find that the places where these demonstrations are to be held cannot be reached by you and neighboring poultrymen, the county agent will be pleased to arrange for one in your locality if you will cooperate with him. There is a chance to add two more deponstrations to the week's program.

Systematic Culling

High feed costs increase the need of efficiency in poultry keeping. Hens evidence wide variations in respect to rate of production and the periods over which it is distributed. Obviously, the higher the rate and the longer the laying period, the more eggs are laid. Many hens—the poorer layers—stop laying early in summer. These are the birds to cull out and market in order that feed may be conserved and the remainder of the flock may have more favorable environment. Other hens—the better layers—continue to lay late into the fall. These are the more profitable birds; they complete the moult more promptly and, if held over for a second laying season, come back into production earlier in the spring. It is from these that breeders should be selected. Systematic culling may profitably be applied from month to month thru the fall eliminating those birds which fail to pay their board bill.

Judging Fowls For Laying

The trapnest is the only accurate measure of egg production. Yet, observation of trapnested flocks, and subsequent tests of the inferences drawn, prove that there are certain physical evidences of high or low production which indicate, to a fair degree of accuracy, laying condition. Indeed, it would be strange if a bird laying eggs totalling many times her own body weight were not in some manner branded by such strenuous physical and chemical activity. True, these are evidences of past or present production; but what better index need we seek of future performance?

FARM ACCOUNT BOOKS APPRECIATED

During the early part of the year, we announced in an article written by Benjamin Southwick that farmers' account books could be obtained for 15c by applying to the County Agent. The value of these books has been greatly appreciated, so much so that the supply has become nearly exhausted, only four books remain for distribution. We have applied to the Massachusetts Agricultural College for additional copies but its supply has been entirely disposed of.

Several of the most progressive farmers in Norfolk County who have purchased these account books, think they are simple and convenient, answering the purpose for which they were meant most satisfactorily.

The interest of farmers in the profits of their business as returned from the several parts of the farm operation is becoming more and more evident. By keeping accounts one finds his poultry is returning him the largest profit and is planning to increase that end of the business; another learns that his small fruit for the past two years has made him a handsome profit; and still another finds that he can well afford to increase his plantings of fruit trees; a dairyman has found that he would be better off if he grew more hay and reduced his corn acreage. In every line of business good accounts tell the owner where his profits and losses can be located. accounts do not correct losses, they point them out and the operator makes the adjustment. Farming is a business of many details and it takes a wide awake man to make it pay the same as in any commercial line. business has its successful and unsuccessful men. The successful in most cases, are the ones who make a study of their operations in all its parts. Accounts are the index to success or failure in business. Farming is the largest business in the world and those engaged in it are rapidly realizing that it offers the greatest opportunity for keeping an account system that will lead to making it more profitable.

We would like to see every farmer keeping accounts and making a study of his business, thereby making it a more renumerative one.

STATE COUNTY AGENT CONFERENCE VISITS WORCESTER, MIDDLESEX AND ESSEX COUNTIES

The annual summer conference of the county agents was held on the dates, July 9th-12th. It assembled for its first meeting in Horticultural Hall, Worcester where questions pertaining to organization were discussed. In the afternoon the conference visited points of interest in Worcester County.

The first stop was made at the farm of Mr. Edwin Warren in Leicester. This is a typical New England farm and is one of those which demonstrates a profitable farm organization. It shows the possibilities in agriculture when all the best known methods for getting results are put into practice.

A little further on the farm of Gleason Warren was visited. Mr. Warren is a believer in the use of acid phosphate in supplementing his stable manure. He was able to show some very marked results from this practice.

At the Moose Hills Farm where the next call was made, Mr. John Sibley, the owner, took considerable pains in presenting facts to show the cost of producing a corn crop and putting it into the silo. From his deductions, he found that for his particular farm, there was a question whether growing corn and putting it into the silo was a profitable venture when he could purchase beet pulp at reasonable figures. Some of the finest Jersey cattle in the county are owned and bred by Mr. Sibley.

Mr. Sagendorph, the next farmer to conduct the county agents over his farm, is the owner of one of the best Ayrshire herds in the United States. He has just completed some splendid farm buildings and has secured some remarkable results in cleaning up stump and pasture land and putting it under cultivation.

This completed the first day's program. On the following day the conference visited Mr. Pratt's farm in Sterling who is one of the Trustees of the Worcester County Farm Bureau. He is breeding and producing a high grade herd of Herford cattle. When the conference arrived at Mr. L. L. Richardson's in Leominister who is president of the Worcester County Farm Bureau, he was right on hand to show his splendid layout of practical farm buildings, orchards and crops. He was very proud to show one of the best Herford bulls in New England.

The conference then proceeded to the farm of Mr. J. H. Fish in Lunenburg. Mr. Fish is a retail milk man putting out 1000 quarts of milk a day. A neighbor of Mr. Fish, Louis Harrington, showed the visitors a very practical demonstration in poultry work. This demonstration is bringing out the points which make for higher producing stock.

The next visits of the conference were in Middlesex County, first at the dental clinic at Townsend which was organized through the efforts of the Middlesex County Farm Bureau. This dental clinic was equipped by a public spirited Farm Bureau member and is giving the children of Townsend an opportunity to secure treatment at a minimum cost.

The Farmer's Cooperative Exchange at Ayer was one of the interesting places visited and Mr. Ralph G. Davis, Manager, took much pleasure in describing the methods of the organization and the results it had secured.

When the county agents arrived in Littleton, Mass., they were received on the farms of Mr. Harry Knights, Mr. E. H. Priest, Mr. John Hardy, and Mr. Nahum Whitcomb. These farm owners are demonstrating many profitable methods in their farm operations.

From Littleton a visit was made to the Drew Fruit Farm in Westford. Mr. Drew has constructed a storage in the basement of his barn which keeps apples in the best condition during the entire winter. The storage has a capacity of about 4,000 bushels. There was nothing expensive about the construction of this storage and is possible for any farmer to have in his barn basement at a small cost. It makes it possible to put the products of the farm on the market during the entire winter and allows an opportunity to take advantage of the market.

From Middlesex County the trip was continued into Essex. Probably the outstanding feature of the trip was brought out by Mr. Averill's explanation of how the West Andover farmers were called together by him in cooperation with County Agent Gaskill at which time a very live cooperative exchange was organized.

The conference wound up by a few words of advice by President K. L. Butterfield, of the Massachusetts Agricultural College and Mr. W. A. Lloyd of Washington, who is in charge of northern and western extension work in the United States.

THE GARDEN

The season for planting crops with the expectation of harvesting them this year is practically over; still it is possible to get a crop of lettuce and turnips, provided the land is in a moist condition, and the seeds are planted about the first of the month. An ample supply of readily available plant food will be required to get satisfactory results, on account of the shortness of the season.

Where there is a piece of land from which the crop has been harvested, sow some winter rye, raking it in thoroughy. This serves a two-fold purpose, it prevents washing of the soil and next spring furnishes a crop of humus-making material to turn under.

Do not neglect the weeds, keep them from going to seed.

Stir the soil occasionally, conserving soil moisture.

Keep a sharp look-out for insects and disease. Prevent and control by spraying.

Flower Garden—Young plants of many of the biennials and perennials should be large enough to transplant now. After transplanting keep a light shade over the plants for a few days until they get established in their new quarters.

Keep all plants that need it, neatly staked and tied up, and all wilted blooms cut off, this will help to keep the flower garden attractive.

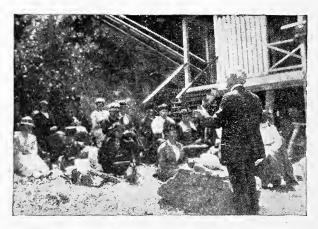
Peonies-If you are interested in this fine family and would like plants and blooms of real exhibition size, and quality, now is the time to prepare the bed and set out the plants. Select a well drained piece of land in a sunny situation, excavate to a depth of three feet, (and as wide as you would like to have the bed) cart off the excavated soil if it is not of the best quality loam, fill in with a prepared compost of decayed sod (two parts) and well rotted barnyard manure (one part) and to each cubic yard add one half bushel of coarse cracked bone—this filling should be well tramped in to prevent as far as possible future settling of the bed-fill up and finish off We are now ready to plant. Select good strong clumps containing at least four good eyes, space them three feet apart each way and plant deep enough so that the top of the crown will be two inches below the surface. The plants will take hold and be nicely established before the ground is For winter protection, cover the bed with about three inches of coarse strawy manure. Next spring it will not be necessary to remove the covering except over the plants, allowing the young shoots to come through. There will be some flowers the first year after planting, but the best results are obtained from the third year and later. The foregoing method may seem expensive, but bear in mind, Peonies do best if not disturbed for several years after planting, and that quality is remembered long after price is forgotten.

HOME MAKING DEPARTMENT

COUNTY CONFERENCES A SUCCESS

Sectional Meetings Are Well Attended by County Women and an Increased Interest Shown In Home Demonstration Work

It is characteristic of human nature to need occasional inspiration in order to maintain interest in work whatever it may be. We are thoroughly convinced that our county "get together" meetings are of great inspirational value both to the women who attend them and in promoting the county work. Previously we have had semi-annual meetings at Walpole for the women throughout the county, but each time we have been disappointed in the limited number of towns represented. We realize that this was an un-



PROFESSOR CHENOWETH ADDRESSING COUNTY WOMEN ON THE NORTH WEYMOUTH SHORE

avoidable circumstance due to the poor train and trolley service to and from Walpole.

An effort was made in June to overcome this difficulty and two sectional conferences were held, one in the eastern end and one in the western end of the county. On June 13th the women in the towns of eastern Norfolk County were invited to attend an all day conference at the Wessagus et Yacht Club which is situated on the North Weymouth shore. An interesting and informal program was arranged, county women and county and state leaders taking part. Photographs and exhibits of work done in the clothing, household management and warm school lunch projects were displayed and project leaders explained the development of the work in the county. Miss Gifford from the State College explained the new household account book which is being used throughout the state and emphasized the value to the housewife in keeping these records. An illustrated talk on fruit products made with less sugar was given by Prof.

Chenoweth of the Massachusetts Agricultural College. This number of the afternoon program was enjoyed on the ocean's shore in sight of an aeroplane which was manoeuvering in the distance. The closing number of our afternoon program was given by Miss Comstock, State Home Demonstration Leader who told of the value of the support of local women in furthering home demonstration work.

A similar program was given at the western conference held one week later at Lake Pearl in Wrentham. These out of door meetings with a picnic lunch proved quite popular and because of the informal atmosphere of the occasion, women became acquainted with their neighbors in adjacent towns and discussed with them the work which was mutually interesting.

For the women living in towns that were not accessible by train or trolley to either conference, arrangements were made for having these representatives taken in automobiles which three council members very kindly loaned for the day.

We take pleasure in giving the statistics of the attendance because we feel that this is indicative of the interest shown in the work. Forty-five women were present at the Weymouth conference, thirteen out of fifteen towns being represented. At the Wrentham conference, seventy-eight women were present, representatives from twelve out of fourteen towns being present.

The interest and enthusiasm shown by the women was quite gratifyin. The possibility of obtaining assistance from the Farm Bureau was more clearly understood and we feel that the inspiration gained from these meetings will help materially in promoting future work.

WHAT TO DO WITH FRUIT

In Jellies, Jams, and Butters Summer Fruits May Be Served the Entire Year

Jellies

When it comes to jelly making, housewives usually fall into one of two classes—good or poor jelly makers. Many of the failures experienced in jelly making may be attributed to the fact that hard and fast rules cannot be given for this process, but many of the failures may be prevented by considering the factors which determine the results and by observing a few precautions which will make success possible. Experimental work in jelly making has been done during the past year at the Massachusetts Agricultural College. The suggestions given in this article include the results of some of these experiments.

Quality of Fruit. Fruit that is just ripe is at its prime for jelly making. At this time fruits that normally contain acid and pectin in sufficient quantities to produce jelly will have these substances at their best. If one must use fruits slightly over ripe, add a small quantity of the same fruit that is under ripe or some other fruit known to contain pectin. For the fruits which lack pectin such as the strawberry, raspberry, blackberry, peach, and cherry, fruit juice rich in pectin may be combined with them and a good quality jelly will result. Apple juice can well be combined with fruits deficient in pectin. Use 1/2

to $^{1}/_{2}$ of apple juice to one part by measure of raspberry juice or blackberry etc. If the fruit is deficient in acid, add some fruit juice with a high acid content.

Pectin Test—In order to determine if pectin is present, add two parts of epsom salt to one part of fruit juice by volume. Heat, and if a decided white precipitate rises to the surface, pectin is present in the fruit juice.

Preparation of Fruit—Wash fruit thoroughly and, if fruit is large, cut. Slice apples 1/8 inch thick at right angles to the core, running from the stem to the blossom end. When cut this way the slices are of uniform thickness and cook evenly. For hard fruits, add an equal quantity of cold water by weight; for soft fruits, add water equal to ½ the weight of the fruit.

Cooking Period—Place the fruit and water in a covered kettle and boil for ten minutes. Remove to the back of the stove and let stand for ten minutes. Strain through four thicknesses of cheese cloth. Remove pulp to a kettle, add cold water equal to that added in the beginning and repeat the directions given above. The juice obtained this time is called the second extraction. As many as three extractions may be made from fruits rich in pectin. The various extractions may be combined or made separately into different grades of jelly, the first extraction making a more superior flavored jelly.

Addition of Sugar--The old-time rule most commonly used calls for equal amounts of fruit juice and sugar. Experience shows that jellies of superior flavor and quality may be made when the sugar is reduced to \% or \% the amount commonly used. With most fruits one-half as much sugar as juice by weight will give good results and a truer fruit flavor will be obtained. Heating the sugar is an unnecessary bother for the quality of the jelly is not improved by this precaution. Fruit juice should be cooked before sugar is added. It is difficult to set any arbitrary period since the rate of boiling and the character of cooking vessel will determine this largely. Where small quantities of juice, 2 to 3 quarts, have been cooked at a time in a fairly shallow aluminum kettle at a rate which kept the uquid at a hard boil, the following rule has been found to work satisfactorily: If 3/4 as much sugar as juice is to be used, boil 5 minutes; if 1/2 as much sugar as juice is to be used, boil 10 minutes and if 1/4 as much sugar as juice is to be used, boil 15 minutes before the addition of the sugar.

straining—Jelly need not be skimmed during the cooking period. Continuous skimming is wasteful of the material. Allow the syrup to boil vigorously until the jelly test is reached. The sheeting test most commonly used is the one that can best be relied upon. When the cooking juice has become so concentrated that it forms a sheet ½ inch or more in length on the edge of the spoon when suspended in the air, it is ready to be removed from the fire. Strain through a cheesecloth into a hot pitcher and fill the sterilized jelly glasses immediately. Straining through the cheesecloth makes previous skimming unnecessary. It is a wise precaution to hermetically seal jelly when ¼ to ½ as much sugar as juice has been used.

Sealing-After the jelly has stiffened in the glasses, run a blunt edged knife around the edge to loosen the jelly from the glass to a depth of 1/8

inch. When the boiling paraffin is poured on, a much better seal is obtained. Cover jelly glasses with the tin covers or paper sealed over the top. Store in a cool, dry place.

Jams

Slightly over ripe or soft fruits are best fcr jam making. All fruits too soft for canning should be converted into jams or butters. Jams of superior quality may be made from the seedy small fruits as raspberries and blackberries and if a small amount of apple pulp is added, a better consistency is obtained, the product beng less seedy. After pulp may be added in the proportion of $\frac{1}{4}$ to $\frac{1}{3}$ as much apple pulp as fruit pulp.

The cooking of jams should be rapid; i. e., cook at the boiling point. The sugar should not be added until the product begins to thicken. Add sugar equal to ¼ the weight of the berries used. Jams should have a fine, even, texture with no free liquid separating from the solid portion. If a spiced jam is desired, the spices may be added just before removing from the stove. Jams made with a small proportion of sugar as directed above will not keep in paraffin sealed glasses as well as when equal parts of sugar are added. It is advisable to put these less sweet jams into hermetic sealed containers such as the ordinary glass fruit jar.

Blackberry jam—Weigh the berries and wash thoroughly. Place in a preserving kettle and crush some of the fruit. Heat slowly until the juice flows freely, then raise to the boiling point and cook until fruit is broken up. When the boiling mass shows signs of thickening, add sugar equal to one-fourth the weight of berries, and cook until the desired consistency is obtained. Transfer to sterile glass jars and seal at once.

The addition of apple pulp will greatly improve the quality and lessen the cost of the product.

The same directions may be followed in making strawberry, blueberry and raspberry jam.

Butters

Fruit butters are among the best of our fruit products. They are easily made and should be classed among the least expensive and economical fruit products. They are made chiefly from such fruits as the apple, pear, plum, peach and grape. If the fruits are cooked until very tender or until they form a pulp and are then run through a fine sieve, the labor of peeling is eliminated, better color is given the fruit, and the product is given a fine grain.

Fruit butters should be cooked until they are quite thick. Their consistency should be such that they are soft, spread easily, and when a spoon is lifted up from the boiling mass, it will come up heaping full, or when a spoonful is placed on a dish, no liquid separates from the solid portion.

Apple Butter—One peck ripe cooking apples, 2 gallons cider, 1½ to 2 pounds of sugar. Wash the apples, remove all bad spots, and cut into quarters or slices. Place the pieces of fruit in a porcelain or aluminum vessel, add 3 or 4 quarts of the sweet cider and heat to the boiling point. Continue to boil until the fruit is reduced to a pulp. Meanwhile, place remainder of sweet cider in another vessel and boil down to one quart.

Pour the cooked fruit into a sieve or colander, and using a cup or fruit jar, force the pulp through. Return the pulp to the cooking vessel, add the remainder of the cider and cook with constant stirring until it begins to thicken, which will be shown by the sputtering of the boiling product. Add the sugar and continue the cooking until the desired consistency is obtained. This last cooking process will require two or three hours. If a spiced product is desired add 3 teaspoons of ground cinnamon and two of ground cloves just before removing from the fire. Fill the hot butter into sterilized glass jars and seal. About 4 quarts of finished product should be obtained from this recipe.

If a tart butter is desired to be used as a relish instead of a spread, omit the sugar.

Apple butter made in this way is an excellent substitute for the rich jellies and preserves so commonly eaten.

If cider is not available add enough water in the beginning to start cooking and proceed as directed.

Apple butter is the cheapest and one of the best of the apple products. It is easily made and might well become a part of our regular diet. Cider is not necessary, but adds much to the quality of the product.

ITEMS OF INTEREST

Owing to the cut in the Federal Smith Lever appropriation, much of the extension work in the cities throughout the state is to be discontinued. In order to continue this part of extension work, it must be supported by the cities independently or in cooperation with the county Farm Bureau.

Quincy, the only city in Norfolk County was organized for home demonstration work last February with Miss Edith Badger as leader. The work has been well started and developed to such a point that the people are not willing to have it cease. Funds necessary for carrying on this work until January, 1920, have been appropriated by the city government and the county trustees. This cooperation will make possible a stronger and better organized piece of work since all extension work in the county will be centralized in the Farm Bureau organization.

Have you discovered how to extend the flavor of raspberries and blackberries? These fruits are so expensive that one needs to make them go as far as possible. Weigh your berries and add one half as much cold water by weight. Boil in a covered kettle for ten minutes. Let stand ten minutes and strain. Bottle the juice for future use by filling fruit jars with the juice, partly sealing the jars, and sterilizing them for 16 minutes. Seal tightly and put one side until you are able to get some apple juice, then combine the bottled juice with 1/3 to 1/2 as much apple juice. Follow the general directions for making jelly. The fruit pulp in the jelly bag may be combined with apple pulp and sugar and made into jam.

Did you look for your neighbors tried recipes in this month's issue of the bulletin? We didn't forget to put them in but lack of space made it necessary to postpone them until next month. Our supply of these recipes will not last indefinitely—have you made your contribution.

Is your town planning for a fall exhibit of garden produce and preserves? In the majority of towns, these fairs have grown to be an annual event and are well attended by the townspeople. Should we not aim to make these harvest festivals educational as well as attractive, and encourage the introduction of exhibits that tend to have an educational value.

The Farm Bureau office will be glad to cooperate in furnishing exhibits of this nature. The following exhibits will be arranged by this office and are available for the fall fairs:

- Exhibit of home conveniences including a homemade fireless cooker and iceless refrigerator.
- Kitchen plans illustrating the working equipment arranged to save steps
- 3. A simple household account book which will help in stopping the leaks in the income.
- 4. A clothing exhibit made by members of our clothing efficiency classes.
- 5. Wearing apparel made from flour sacks.

The Home Demonstration Agent will be glad to meet with the fair committee to discuss the matter of exhibits, prizes, etc.

Have you a copy of the bulletin "Home Manufacture of Fruit Products" written by Prof. Chenoweth of the Massachusetts Agricultural College? The suggestions contained in this bulletin for making jellies, jams and butters are very valuable and the recipes reliable. We will be glad to mail one of these bulletins to you.

The next best thing to a commercially made fireless cooker is a homemade one. Every household should have this practical device. One woman told the Home Demonstration Agent the other day that she used her fireless cooker every day of her life and she wished that her three compartment cooker was even larger. Why have you never used a fireless cooker? We will send you the directions for making one.

"This is a fine combination of fruits" so one woman has written to the Home Demonstration Agent. It sounds good and well worth trying. Use equal parts of rhubarb and blueberries, stew them together and add one cup of sugar to each quart of fruit. This may be canned and served as a sauce or cooked until thick as a marmalade.

JUNIOR EXTENSION DEPARTMENT

MIDSUMMER CLUB FIELD DAY

The copy of the Norfolk County Club News accompanying this Bulletin will give you some very definite information about the club members Field Day to be held here at the Norfolk County School on August 20th. A cordial invitation is extended to all adults interested in the work of our boys and girls to be present on this day. All plans are being made with the object of giving all club members a good time as well as advancing the agriculture of Norfolk County thru the club members. Various demonstrations by members the selves will be of special interest to parents and friends. Make a note of the date, August 20th, and see that club members in your town have a chance to get here.

FALL TOWN EXHIBITS

Plans Should Be Nearly Completed. What Are the Juniors Offered? Let the Farm Bureau Help.

Most of our towns have fall exhibits of one kind or another. The best ones are those where plans are made well ahead and all people know about them.

Premium lists should be out by early August and committees on arrangements should be down to business.

Boys and girls, if given half a chance, can make most of our fall exhibits fifty per cent. better. Get some of the active club members on the committee. Let them help on the arrangements. See also that club members have a fair chance to exhibit and compete for prizes. Nothing will help any more toward developing the juniors than this. Be sure however that they know what they are competing for. In the past too many prizes have been given for five fingered carrots and misshapen potatoes, because people were interested in them. Special talks on selection of vegetables for show and storage given to the young people of some towns have helped materially in raising exhibition standards. The Junior Section, Farm Bureau Department, of the Norfolk County Agricultural School will gladly arrange for any such talks or give any help in arranging for bettering fall exhibits for the younger people.

ALL ABOARD FOR THE "EASTERN STATES"!

"The biggest thing ever for club work," at least that is the report we get about the Eastern States Exposition in Springfield, Mass., September 12th to 20th. Around 300 club members from the 10 North Atlantic States will gather there to demonstrate and compete in all club projects. Never before will there have been such a gathering or such a chance for people to see what 4 H club work means. The club members will live on the grounds in large army tents, get up and go to bed by the bugle, and be real junior soldiers of agriculture.

Every man and woman in Norfolk County who can possibly get outhere should take in this feature of the big exposition.

Norfolk County Club members are working hard to fit themselves to represent the State there, in order to be able to give you a personal welcome when you come.

.CLUB WORK APPEALS TO THE LITTLE FOLKS

Canton Forms "Little Helpers" Club

Can you remember when you were not quite ten years old? Many of us can, How we longed to dress up in mother's clothes and act like the grown-The idea of club work has taken hold of boys and girls in Canton so much that the little brothers and sisters want to join too. Miss Bertha Ba rows, local canning leader for Canton has formed a club of these "Little Helpers". What kind of a club do you suppose it is? Of course, the size and seven year olds aren't old enough to really can, but their leader made out a list of "helps for mother" that they might do during the week, such as wipe dishes, dust, shell peas, pick up threads, amuse the baby, etc. They add anything they can to the list. Every Monday morning, mother's busy time, when the little folks are apt to get under foot, they come to a club meeting at the high school. There the club officers preside and they hold a sure-enough business meeting. They compare the work of the past week, and plan out the next one. Later on some of them, those nearly ten years old, will be taught to can and be allowed to help the State club members.

Isn't this a real club?

SIDELIGHTS ON JUNIOR WORK

Poultry meetings are being held every month. Town teams are being trained in culling flocks and in disease control.

Calf exhibits are being planned for fall. In Weymouth, a calf club member is chairman of the committee on arrangements.

Canning and poultry demonstration teams will go to Worcester early in S-ptember to compete there for the State championship.

County Champions will be selected at the Field Day, August 20th.

Not enough adults take an active interest in the work of boys and girls in their community. The "after the war" relapse should be over by this time.

Pig club members still believe in raising squealers, not being them.

September will bring most of our fall fairs. If we can help you, lous know your dates early.

SECOND YEAR CANNING CLUB WORK SUCCEEDING

Second year canning club work is proving popular and successful. Fifty-five girls have elected the advanced requirements and are already hard at work. They laugh at the idea that 50 jars is beyond them and the making of jams, jellies and marmalade is as easy to them as canning blue be ries. Most of the 2nd year members have made a good start on fruit products required and many appetizing samples of pineapples, strawberry conserve, raspberry jam, and pineapple marmalade have been brought to the meetings. One girl from Weymouth reports that she chose grape jelly for her product and made it from grape juice she canned last fall. Imagine making grape jelly in July!

The following towns have enrolled girls in second year work:

Canton Cohasset Foxboro
Dedham Needham Norwood
Weymouth

It is especially interesting to note that in four towns we have junior leaders managing their own clubs. In other towns the second year members meet with the first year ones and prove helpful assistants to the adult leaders. There is a strong tendency towards securing local leaders from the ranks of older club members. This promises to give leaders of enthusiasm as well as practical experience. Their earnest effort makes up for any lack in judgment.

Noting the response which the graded canning club requirements are meeting, it seems certain that it is just what club work has needed for some time. The advanced requirements appeal to those who have made a start in the work, gained an idea of the vastness of its scope, but feel that repetition of the same projects and requirements is not big enough to satisfy their capabilities. It is a step which should be followed by other projects.

The following comparison of 1st and 2nd year work may be interesting to those who are not familiar with the requirements:

1st year

Can 24 jars—including at least 5 varieties, 3 vegetables, 2 fruits.

Keep record.

Exhibit 5 jars.

Sto v.

2nd year

Can 50 jars including five jars of meat, soup or vegetable combination. 6 of fruit product—jam, jelly, marmalade.

2 vegetables and 2 fruits.

Keep record.

Exhibit 6 jars.

Story.





NORFOLK COUNTY AGRICULTURAL AND HOME MAKING BULLETIN



G. EISENHAURE, A FORMER STUDENT OF WAKEFIELD HIGH SCHOOL AGRICULTURAL DEPARTMENT, MEETS AGRI-CULTURAL INSTRUCTORS OF STATE ON HIS FARM

PUBLISHED BY

THE NORFOLK COUNTY AGRICULTURAL SCHOOL, WALPOLE, MASS.

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TIMELY TOPICS

AGRICULTURAL INSTRUCTORS SEE RESULTS OF THEIR WORK

One of the striking features of the recent County Agricultural School and High School Agricultural Department Instructors conference was the visits to the farms of boys who had studied and are studying under them. The frontis-piece shows Mr. G. Eisenhaure, a boy who studied agriculture in the Wakefield High School, telling the Conference the benefits and advantages he had received from the agricultural course. There are many boys throughout Massachusetts doing the same thing as young Eisenhaure, one, a graduate of the Essex County Agricultural School, is Byron Raymond of Franklin who has purchased and is operating the farm he lives on.

The visits made by the instructors as they went through Essex, Norfolk and Bristol Counties to students and former students of agricultural schools gave them an opportunity to see the great responsibility resting upon them in their work of teaching boys who intend to follow practical agriculture. It also demonstrated the large degree of success being attained and the influence they are having in developing the agriculture of Massachusetts by keeping and bringing its young men back to the farms.

SEVENTH ANNUAL POULTRY CONVENTION HELD DURING M. A. C. FARMERS' WEEK

The program of the Poultry Convention for 1919 was one which gave all those present full value for the time and money expended in getting there. This was fully realized by the continuation of the large attendance through the entire three days.

A special effort was made by those in charge of the meeting to present for disucussion the most vital subjects and problems of the poultryman and give him something that would be helpful in solving them.

The lectures and demonstrations on poultry sanitation, white diarrhoea, diagnosing poultry diseases, egg laying contests, etc., by authorities like Dr. J. B. Paige, Dr. L. F. Rettger, Wm. C. Monahan, Prof. J. C. Graham, Prof. L. F. Payne, Prof. Wm. F. Kirkpatrick and W. C. Thompson were so instructive that one felt that every poultryman in the state would have benefited had he been present.

Several Norfolk County farmers made the trip to Amherst during the recent Farmers' Week of the Agricultural College. While there the opportunity was taken to inspect the 200 acre apple and peach orchard owned by Professors F. A. Waugh and F. C. Sears. This orchard is located in South Amherst, five miles from the College, and contains trees of all the best commercial varieties. The farm has been planted during the past ten years and the oldest trees are well set with fruit this year. Those who made this inspection saw the results of ten years work in fruit growing.

On their way to Farmers' Week Mr. Henry Crane and Mr. I. I. Margeson of Westwood stopped at the fruit farm of J. T. Geer in Three Rivers. Mr. Geer's farm is a fine example of a profitable fruit and poultry business and he is a strong believer in thinning fruit and practices it on all his trees, old and young. The prices he receives for his apples more than repay him for the extra work of thinning. Mr. Geer raises and keeps a thousand laying hens each year and produces the corn which they eat. During the summer the growing chickens use the corn fields to range in.

At the last meeting of the Board of Trustees of the Agricultural Waid, Manager and Treasurer of School. Prof. Ernest D. elected Consulting Advisor. Mr. Farm in Walpole was Waid is a graduate of the Ohio State University, class of 1906. Following his graduation he taught agriculture at the State College, Knoxville, Tennessee, going from there to the University of Maine as teacher of agronomy, returning to Ohio where he was in extension work for two He left there to take the position of Assistant Director of Extension Work at the Massachusetts Agricultural College. During his extension work in Massachusetts he managed a farm in Amherst, growing potatoes and onions as the main crops with a small dairy. In April, 1917, he came to Walpole to take charge of Mr. George M. Plimpton's farm With a man like Mr. Waid for Advisor known as the "Lewis Farm." the work of the School and farm should show marked improvement.

Mr. Andrew N. Schwab, who has been Agricultural Instructor in the Weymouth Department during the past year, resigned the middle of August to take charge of a farm which he has purchased in Yalesville,

Connecticut. To fill the vacancy we have engaged Mr. Charles W. Kemp who had charge of the Weymouth Department during 1916 and 1917 and who resigned to take the position of Farm Manager at the Riggs School, Lakeville, Connecticut, which position he now holds. Mr. Kemp is a graduate of the New Hampshire State Agricultural College with a number of years teaching experience. During his stay in Weymouth he did most excellent work and it was through the earnest request of the Superintendent of Schools, citizens and former pupils, that we were able to induce Mr. Kemp to return.

Miss Ethel L. Kennedy, who for the past three years has been a clerk in the Extension Service at the Massachusetts Agricultural College, came to us August 15th. She will have charge of the office and we feel that with Miss Kennedy's experience in extension work we shall be able to do better work for the County than we have ever done before.

The first of last month Mr. Fred C. Hambly of North Dartmouth, a young man who for some time was employed as Assistant Foreman on the farm of the Bristol County Agricultural School, was engaged as Farm Foreman. Already the farm is showing the result of his work in clearing and plowing rough land which will be in good condition for the cultivation of crops the coming season.

Transportation facilities are such that we find it will be necessary for some of our students to board at the school. Therefore we are making arrangements for opening the building used the first year for school purposes and to be used later for the Home Making Department, as a boarding and lodging house for the boys with a competent matron in charge.

Some of our largest poultrymen are saying that if there is any way to get breeding stock tested for white diarrhea they will not attempt to hatch until it is done. There is always a chance of carriers of the disease being present in the breeding flock and it spreads like fire after the chicks hatch.

One of the questions of importance the farmers are asking is how far the corn borer is going. It can't be answered. The only thing we can do is to depend upon those in charge of its control to work out some practical means of holding it in check. Whether it can be done remains to be seen.

Mr. H. J. Hope, Chickatawbut Farms, Canton, tells us that the pen of White Plymouth Rocks from his farms, in the Connecticut Egg Laying Contest, won first place for April and May and second place for March, all 100 pens competing.

If you have any number of good large healthy pullets for sale we would like to know it as inquiries have come in asking where they can be purchased.

A piece of winter wheat an vetch is worth a trial by all dairymen who grow green feed for early spring use. About thirty pounds of vetch seed should be sown with about one and one half bushels of wheat to the acre and the chances of a good crop are better if the crop is sown by September 1st.

AGRICULTURAL DEPARTMENT

FARMERS ATTEND MASS. AGRI. COLLEGE FARMERS' WEEK IN FORCE

The first summer farmers' week of the Mass. Agricultural College was so well attended by farmers from all sections of the state that there is no doubt as to its success. On one single day over 150 automobile parties brought 1000 people besides those arriving by train and trolley. The attendance continued far beyond the expectation of those in charge of the arrangements throughout the entire week.

The state grange, dairymen and tobacco growers had their day on Tuesday, July 29th, holding their respective meetings in the open on the The grange was the centre of interest during the morning, presenting on its program several prominent speakers. Past Master Chapman lead the audience in the singing of several selections, after which President Butterfield made a welcoming address announcing that the summer farmers' week was to be a permanent feature provided the demand for it continued strong enough to warrant the effort and expense necessary to make it worth State Master Leslie R. Smith limited himself to a short time, while. emphasizing the necessity for greater cooperation and organized effort in promoting grange affairs in the state. Carlton D. Richardson of Brookfield dwelt further on the same points brought up by Mr. Smith and believed that many needed reforms could be brought about to benefit the agriculture of Massachusetts if cooperative and a united effort of forces sup-Mr. Richardson clearly stated that it was the duty of the grange to support the Massachusetts Agri. College in every possible way.

Dr. G. H. Chapman who has been investigating tobacco for two years gave a summary of the work, after which Professor Guy Smith spoke on the marketing of Connecticut leaf tobacco. Mr. C. D Cannon of Windsor Locks, Conn., demonstrated the sorting and grading of Connecticut Havanna and Broadleaf tobacco as practiced in his state and Mr. Seaver of Agawam explained and exhibited his tobacco stripper.

At 1.30 P. M. the Holstein Breeder's and Mass. Dairymen's Ass'n started their program continuing it through Wednesday. Mr. W. F. Schelling, President of the Twin City Milk Producers' Ass'n of St. Paul, Minnesota, gave a most interesting account of this organization and its working policy; besides this address he gave another to a capacity attendance in Grinnell arena on the subject "Cows, Colleges and Contentment."

Other features of the days' program were the interesting and timely talks by Mr. Haslett, sheep specialist for Mass., Mr. L. L. Heller, Asst. Secretary, Nat'l. Wool Growers' Ass'n and Prof. D. L. James of the College Faculty.

Thursday was the Mass. Fruit Growers' Ass'n day and their program offered so many important subjects for discussion and demonstrations that the attendance was unusually large. Professor F. C. Sears had the meeting in charge and kept things moving on schedule time so that every feature was carried out and completed in a thorough manner. The demonstrations of spray guns and dusting machines brought out many practical questions as did the thinning talks and inspection of trees that had been thinned. Prof. Farley of the New Jersey Experiment Station spoke in a convincing way on "Spraying." He said that we must pay more attention to the time of spraying, materials we use, and insects and diseases we are trying to combat.

After the noon hour Professor W. W. Chenoweth and Mr. W. R. Cole of the Horticultural Mfg. Department introduced the fruit growers to many fruit products that could be manufactured at home out of the cull and unsalable fruit from the farm. Samples of vinegar, raspberry-apple jam, apple butters, fruit jars, marmalades and blackberry punch were available to those present.

The final demonstration of the day was of four apple grading machines. As these machines were put in operation, their good and bad features were discussed in full, after which the test and experimental orchards were inspected.

The women were provided a most interesting program prepared especially for them. It included lectures by Mrs. Ruth S. Reed on "Clothing," Professor O. A. Jamison on "Milk as Food," Miss Laura R. Gifford on "The Business of Housekeeping" and Professor W. W. Chenoweth on "Fruit Products."

The evenings of the week were given over to educational lectures and moving pictures which were very much worth while, giving those in attendance many constructive ideas and thoughts to take home.

During their stay in Amherst many groups of farmers took the opportunity to inspect the several departments of the College. The heads of the respective departments were glad to give explanations of their work and show the results being obtained. This feature was greatly appreciated and gave many a chance to learn about the important work being done by the Agricultural College.

CORN INCREASES IN FEEDING VALUE RAPIDLY AS IT NEARS MATURITY

Investigations of the Indiana Experiment Station have determined that a corn crop increases very rapidly in weight and feeding value from the silking stage to full maturity. From July 24th, 1918, to September 24th, when it reached the glazed stage, the crop increased over 10,000 pounds in total weight and dry matter increased from 731 lbs. per acre to 8,104 lbs. per acre, an increase of more than 1,000 per cent. The dry matter continued to increase up to October 8th when the corn was fully mature, but the total weight of the green crop decreased, due to loss of moisture in the drying out of the corn as it matured. The mineral matter, crude protein, carbohydrates and fat also appear in larger proportion in the matured corn. Studying the data of the Indiana Station shows plainly the heavy loss of valuable nutrients which is sure to occur when a crop of Indian corn is harvested too early in its growth. Better value is returned the nearer corn comes to maturity before being cut.

MAINE GROWN POTATO SEED SHOWS SUPERIORITY AT MASSACHUSETTS AGRICULTURAL COLLEGE

Already there is a great amount of evidence to indicate the superiority of Maine grown potato seed as compared with home grown. A trial which is now being run on the College farm under the direction of Prof. Cooper further illustrates this point in a very striking way.

Green mountain, certified seed, was planted during the latter part of

May on a well fertilized field at the rate of about 15 bushels per acre. Half of the field was planted with seed grown on the College farm, two years from Maine and in the other half was put seed brought from Maine this year. Of course it is too soon to give comparative yields, but even at this date the field shows a striking difference in the two plots. The vine growth on the Maine seed is much more abundant and vigorous than that on the home seed and when vines are pulled up the same amount of difference may be seen with the tubers. The test presents a very striking comparison.

CULL YOUR POULTRY

Contrast of High and Low Producers Good Layers

- 1. Moult late. When a hen stops laying in summer she usually moults. Good layers lay late, therefore moult late. Some hens, of the American breeds especially, lay intermittently thru the early stages of moulting.
- 2. Have a bleached appearance due to the loss of fat and yellow pigment. The yolk and body pigment are identical. Laying exhausts the body pigment. The body parts fade in accordance with blood circulation. Vent, eyelids, beak and shanks fade in the order named.
- 3. Have moist vent, open, pliable pelvic bones, prominent sternal processes and bright combs. The condition of the pelvic (lay) bones may be determined by feeling. On a laying hen they are open sufficiently to allow easy passage of an egg.
- 4. Evidence capacity in well developed abdomen and quality in soft, pliable skin. Egg production requires much food. The distended intestine and functional ovaduct fill out the abdominal cavity and increase the span between keel and pelvic bones.
- 5. Possess constitutional vigor, freedom from physical defects, active disposition and friendly yet nervous temperament.

Poor Layers

- 1. Moult early. Poor layers quit early and, therefore, moult early. By fall they often have a smooth coat of new feathers as contrasted with the rough, ragged feathering of better layers.
- 2. Retain fat and yellow pigment. In poor layers the shanks continue yellow. A yellow vent is indicative that the bird is not laying. When a hen stops laying the pigment returns in the same order in which it left, viz., vent, beak and shanks.
- 3. Have puckered vents, close, rigid pelvic bones, receded sternal processes and limp, pale combs. When a hen is not laying her vent drys, the bones set and become covered with fat. Her comb shrivels and loses its bright color and waxy feeling.
- 4. Have little abdominal development and are often filled with hard fat covered by tight, coarse skin. The slacker, if healthy and well fed, usually fattens. The reproductive and digestive systems shrink slightly and the body fills with fat.
- 5. May or may not be healthy, are inclined to be wild or to show an inactive sluggish disposition.

WM. C. MONAHAN,
Poultry Specialist,
Mass, Agr. College.

PRODUCTION OF BEES FOR THE WINTER COLONY

Fall Stores and Room

During late summer and early autumn, when the bees are reared that make up the winter colony, a deficiency in either stores or room for brood-rearing may so restrict the production of young bees that their number may be too low for successful wintering. Colonies that are abundantly supplied with stores and have sufficient brood-rearing space at this time usually continue to rear sufficient young bees even in the absence of a fall honey flow or any stimulative feeding. This is especially true if the queens are young.

Winter Stores

Before the beginning of cold weather each colony should have available at least a sufficient quantity of stores to supply the needs of the bees until late spring. In our climate, where bees are wintered out of doors or in the cellar, it is exceedingly important that the winter stores be of the best quality, such as honey which contains the minimum amount of gums or a syrup made of granulated sugar. If inferior or insufficient the brood chamber when brood present in ceases in the fall, the defect may be remedied by feeding at this time about ten pounds of heavy sugar syrup to each colony. This will be stored where it will be immediately available for winter consumption, thus leaving the inferior stores for spring consumption when they do no harm. Any deficiency in either quality or quantity of winter stores should be supplied immediately after brood-rearing ceases or earlier.

BANISH SCRUB SIRES FROM UNITED STATES

With confidence that better live stock will bring satisfaction and many benefits to its owners, I invite the concerted action of farmers, stockmen, and others in banishing scrub sires from the United States. The widespread use of inferior male breeding animals has been for many years a cause of low production per animal and of needlessly poor quality.

The continuance of such conditions is uneconomic and unnecessary. The direct and practical means of improvement is to use breeding animals, especially sires, which are true representatives of breeds developed for a definite, useful purpose.

I am confident, too, that the public, knowing production to be performed with maximum efficiency, will look upon stock raising with increased respect and understanding. In a few localities noteworthy improvement in special lines has been taking place through individual and community efforts. Let us now hasten such improvement wherever live stock is kept in the United States.

J. R. MOHLER,

Chief, Bureau of Animal Industry.

HOME MAKING DEPARTMENT

GRAPES WILL BE PLENTIFUL

Their Delightful Flavor Has Made Them One of Our Most Popular Fruits

Grapes both wild and cultivated will doubtless be on the market in considerable quantities this month. They are one of our best fruits, their flavor is excellent, and they are adaptable for many uses. Perhaps we are not thoroughly acquainted with the possibilities of the grape. The suggestions offered in this article may not only present a variety of ways of utilizing grapes, but show how the flavor of a given quantity of grapes may be stretched to do more than double duty.

The manufacture of grape products is attended with some difficulties not experienced with other fruits. Frequently the potassium bitartrate which is present in grapes crystalizes out in the product. This is not very serious in the case of grape juice since the clear juice may be poured off and used. In jelly making there is less likelihood of crystals forming if the first run of juice is bottled and set aside until the crystals have been deposited, or where small amounts of sugar are used.

Following is a recipe which will extract the maximum value from 10 lbs. of grapes:

Grape Juice—10 lbs. grapes, 1 pt. water. Stem the grapes and wash thoroughly. Cook in the water at the simmering point until the skins will slip from the berries. Pour into a colander or sieve and allow the juice to drain off. This juice may then be handled in any one of several ways: (1) return to preserving kettle, heat to simmering point for 5 minutes, pour into sterilized jars or bottles and seal at once. (2) Pour the juice into glass jars or bottles, place rubbers and lids in place on glass jars, but do not completely seal. Insert cork in bottles loosely. Stand in a vessel with water to within one or two inches of top of bottles and over tops of jars. Heat to 180 deg. F. and maintain this temperature for one half hour.

Grape Butter—Return the pulps and skins, from which the juice has been drained as suggested in the above recipe, to the kettle. Add ½ pint of water and cook at the boiling point until the berries are in shreds. Again transfer to colander or sieve, rub the pulp through and return to the cooking utensil. Cook at the boiling point for 5 or ten minutes. Add 1 lb. sugar and cook until of desired consistency which should be thick enough to spread well. If spices are desired, these may be added just before removing from the fire. If grapes are expensive and apples are cheap, add 1 /3 as much apple pulp as grape pulp.

Grape Jelly—The skins and seeds from which the pulp has been separated as suggested in the above recipe, may be used for making a fair grade jelly. Return pulp and seeds to the preserving kettle and add water equal to ½ the weight of the fruit cooked. Boil vigorously for 5 minutes, strain the juice and proceed as directed for making jelly in last month's bulletin.

Spiced Grapes-

5 bs. grapes 3 lbs. sugar ½ pt. water 2 t. cinnamon 1 t. clove

1 pt. vinegar 1 t. clove Boil the grapes for 1 hour in the vinegar and water. Force through a colander. Add sugar and spices and cook until a consistency of a heavy cream. This makes a very good relish served with meat.

Apple Butter with Grape Juice—To 1 quart of apple pulp add 1 pt. grape juice, ½ to 1 c. brown sugar and 1 t. cinnamon if desired. Cook until thick enough to spread well. Seal in sterilized fruit jars.

FEDERAL HOME DEMONSTRATION LEADER VISITS NORFOLK COUNTY

Accompanies Home Demonstration Agent in Making Calls on County Women

Never before have we had the privilege of having Miss Florence Ward, Leader of Home Demonstration Work in the Northern and Western States, visit us in Norfolk County. Miss Ward spent part of the month of August in the State of Massachusetts getting acquainted with the county leaders and the type of work which they are doing in this State. One day was spent in Norfolk County and as it happened to be a day when the Home Demonstration Agent and the Assistant State Leader were visiting household account groups, Miss Ward was invited to accompany them.

Besides making home visits in three towns, a call was made at the Foxboro Thrift Center, the Medfield Health Center, and the Farm Bureau office. Although mid-summer is not the most favorable time to visit county work and view the activities in the various projects, an opportunity was given to show the possibilities of developing a project through the individual home visits and neighborhood group meetings. We have been assured that Miss Ward will make a return visit in the winter when we hope to have a larger share of her time and introduce her to the other towns in Norfolk County.

PROGRESS MADE IN HOUSEHOLD ACCOUNTS

Records in Many Homes Date from July First

Since June 1st, 60 household account books have been purchased by Norfolk County women and in many homes family expenses have been recorded since July 1st. Miss Gifford, Assistant State Leader, spent two days in August, visiting, with the Home Demonstration Agent, groups of women in Canton, Foxboro, Franklin, Holbrook, Millis, Sharon, and Westwood. This visit was for the purpose of helping the women who had started with their books and wished to discuss questions which had already arisen. Owing to the vacation season, canning, and other interruptions, some of the women who have purchased the books have not yet started with their records. We hope that when family life becomes more normal in the early fall, that all account books will be started with the determination to carry them through.

Plans are being made for occasional meetings with the account groups during the fall and winter months. At these meetings, and as an outgrowth of the discussion of accounts and family expenses, suggestions will be given for better buying, meal planning, substituting foods of equal food value for less cost, or increased food value at the same cost, and the making of a budget.

If you would like to take advantage of these meetings, get a household account book and notify the Home Demonstration Agent that you are interested in carrying on this work.

TRY THESE RECIPES

They Have Come to Us With the Seal of Approval

Plum Conserve

2 doz. plums Sugar equal to weight of plums 1 c. seeded raisins

Peel of an orange

1 c. chopped English Walnuts

Cut orange peel fine and cook in two waters until quite tender. Mix with other ingredients and boil together one hour or until the desired consistency.

Mrs. Sylvester Smith, Plainville.

Spiced Pears

 $7\frac{1}{2}$ lbs. pears

1 ounce whole clove

3½ lbs. sugar 1½ pts. vinegar 1 ounce stick cinnamon

Boil pears in water until tender, then put in the boiling syrup and cook until done. Pack in stone or crockery jars. These are fine served with meat.

Mrs. Sylvester Smith, Plainville.

Mint Jelly

Obtain the juice from apples as in making apple jelly (see July number of this bulletin). Since porter apples make a light colored jelly, they are well adapted for making mint jelly. Measure apple juice and boil ten minutes. Add ½ as much sugar by volume as juice, and a speck of Burnett's green vegetable coloring. Boil to the jelly stage, and add one or two drops of oil of peppermint or spearmint. Stir thoroughly and pour into sterilized glasses. Mint jelly is very delicious served with lamb.

Corn Relish

Cut corn from twelve ears, add $\frac{1}{2}$ cup sugar, 1 cup vinegar, and salt to taste. Cook twenty minutes. Remove seeds from six red peppers and shred in thin strips. Add salt, let stand fifteen minutes and drain. Chop fine 2 bunches of celery. Add celery and pepper to the corn, bring to the boiling point, and seal in glass jars. Serve cold.

Mustard Pickle

2 quarts, or more, green tomatoes

1 cauliflower

1 bunch celery

6 large onions or 1 quart small onions

4 peppers, 2 red and 2 green with seeds removed

3 cucumbers or 3 large pickles

1 quart of tender string beans, fresh or canned

Cut the vegetables in small pieces, cover with two cups salt and four quarts water; allow it to stand over night. Cook in this brine about ten minutes and then drain. Make paste of the following: 1 c. flour, 1 c. sugar, 5 T. dry mustard, 34 T. tumeric powder. Mix dry ingredients together. Make a smooth paste by adding cold vinegar. Stir into 2 quarts boiling vinegar and cook until a thick paste. Mix with cooked vegetables and bottle while hot.

Mrs. Arthur Owen, Foxboro.

Sweet Pickle

Cut cucumbers, green tomatoes, string beans, cauliflower and onion. Soak the cut vegetables in a brine. Cook the next morning in fresh water until soft. Add 1 c. brown sugar and 1 t. salt to 1 quart of hot vinegar. Pour over the vegetables and bottle while hot.

Mrs. F. B. Brooks, Holbrook.

Sour Pickles

Dissolve one cup of salt, one cup of sugar and one cup of mustard in one gallon of vinegar. Small cucumbers may be placed in glass jars, covered with the prepared vinegar, and the jars sealed; or the cucumbers may be placed in the vinegar in stone crocks, and more added from time to time as they accumulate. Cover with a plate to keep the pickles under vinegar.

Mrs. Arthur Payne, Holbrook.

ITEMS OF INTEREST

The Woman's Club that maintains active departments with interesting monthly meetings seems to have solved the problem of retaining its membership. The Home Making Department of the Walpole and South Weymouth clubs are already planning for their winter program and have asked the assistance of the Home Demonstration Agent in developing their plans. The committee from the Home Making Department of the Walpole Club has decided upon a household management program for their eight monthly meetings this coming year and the tentative outline forecasts a very interesting program. We will print this program in the next month's issue of this bulletin.

We are interested to know what your club is doing by way of arranging a home making program for its members interested in obtaining information along this line.

As a means of encouraging thrift throughout the nation, the U. S. Treasury Department has issued a series of eight bulletins to aid the housewife in conducting her household in a more economical way by adopting preventive measures. These bulletins give helpful suggestions regarding the proper apportionment of the family income for the various needs, the wise purchasing of clothing, proper methods of cleaning, easier laundry methods, the removal of stains, proper care of the clothing, and methods of cleansing wearing apparel made of the different fabrics.

The Home Demonstration Agent will be glad to furnish sets of these bulletins upon request.

Are you familiar with the tomato paste which every Italian housewife uses so continually for flavoring? In the form of a paste the tomato is so thoroughly concentrated that much jar room is saved and a small amount of the product will flavor a quantity of material. It is very convenient to use as a flavoring for soups, spaghetti, sauces, and casserole dishes. The following recipe was given the Home Demonstration Agent by an Italian woman who has made it for years:

1 bù. ripe tomatoes

2 to 3 onions 1 carrot 1 bunch of parsley 2 sweet green peppers (seeds removed)

Boil together thoroughly for three hours. When cold put through a sieve which will retain seeds and skins of tomato. Put in a bag and let drip until dry. Boil paste again until thick and brown. Add 3 T. salt spread on a platter and dry in oven until very thick. Fill sterilized glass jars, cover with ½ inch of sweet oil and seal.

JUNIOR EXTENSION DEPARTMENT

FALL FAIRS GIVE OPPORTUNITY FOR JUNIOR CANNING EXHIBITS

Norfolk County is unlike some of the other counties in the state in not holding a county fair. The keen competition between towns for first place in the various premium classes, the painstaking work for days and weeks on hand made quilts, or putting up jams and jellies from famous recipes, by the women and careful feeding and care of five stock by the men, is unknown to the communities of our county.

The Weymouth Fair has always been the nearest approach to a county fair. Last year it was made larger than before, and the Junior exhibits opened to other towns. Several communities took advantage of this generosity, and the club members sent in unusually good exhibits in canned products. This year the appropriation for the fair has been cut down so that only Weymouth itself can take advantage of the prizes offered. The classes have also been limited to vegetables only. The canning clubs are planning to hold their exhibits at a later date, and it is hoped the interest of the older people will be shown in a large attendance at the exhibits.

There are two fairs in the state open to all towns and cities. One of these, the New England Fair at Worcester, offers special attractions to boys and girls. This year the fair is to be held September 1-4 inclusive at the New England fair grounds. On Tuesday, September 2, will occur the tryouts for the state canning demonstration championships, and on Wednesday, September 3, the poultry demonstration teams will compete for the same purpose. The first prize winners in each project will represent Massachusetts at the Eastern States Exposition at Springfield, September 15-20.

The team to represent Norfolk County at the New England Fair will be decided at Walpole at the Field day August 20. A general invitation to attend this affair was extended to all interested people in the county through the county publication.

Premium lists for exhibits in canning, vegetables, poultry, pigs, calves, and rabbits have been extensively prepared and opened to young people.

Judging contests as well as demonstrations will be held at Worcester.

The canning premium lists particularly interesting to boys and girls are as follows:

Best 4 glass jars vegetables, all one kind,	e 2 00	60.50	e e 00	e+ 00
individual exhibit	\$3.00	\$2.50	\$ 2.00	\$1.00
Best 4 jars of greens or asparagus, all same				
product, individual exhibit	3.00	2.50	2.00	1.00
Best 4 jars berries, all of same kind, in-				
dividual exhibit	3.00	2.50	2.00	1.00
Best 6 jars, one each, peas, corn, string beans,				
greens, berries, pit or stone fruit, in-				
dividual exhibit	3.00	2.50	2.00	1.00

PRIZES SHOULD BE AN INSPIRATION TO CLUB WORK

Are prizes worth while? Should we hold up a reward to boys and girls to obtain good results? In considering the value of prizes it is well to look at it from the standpoint of young people. It may be easy for older people to work hard for the sake of a task well accomplished, and surely pride in work well done is the point striven for in boys' and girls' club work. It is not as easy to inspire children with that same pride, however, in the beginning. Give them something to work for and watch them go after it. The same is true to a certain extent of us all. The Grange Fair has inspired many a housekeeper to put extra touches on her handiwork and many a farmer to give special attention to his animals.

Everyone works better for competition, and so with young people, every club contest which means competing with other boys and girls in similar projects is an inspiration. That is the reason we urge the offering of simple prizes by the localities for the club work done in their community. It shows that the older people are interested in what is being done, and the community takes more pride than when the awards come from outside agencies.

In no line of club work are the prizes held up as the end to be gained. This must be clearly understood. The club idea, the increased interest of boys and girls toward activities of home and farm and the improvement of those conditions, is the main idea, but when rightly given, prizes have a very definite value as an aid to club work, though not as the aim. The State prize given to the first prize winner in each project, the week's camping trip at the Agricultural College at Amherst, is a fine example of the good prizes can do when given in the right way. While the prize is given on quality, no club member received a prize who had worked only for himself at the expense of others. Co-operation and a feeling of responsibility towards the other club members counted also, and so the ninety boys and girls who gathered at Amherst in July for a week of camping, fun and instruction, were those who will make fine citizens for the future.

During that week, after mixing with others from all over the state, exchanging experiences, listening to talks from the college professors and taking trips to points of interest, a new and larger idea of club work was given to every boy and girl who attended. They began to realize their When the week was over and they returned home, relation to the nation. next to the associations and friendships formed, they carried away a sense their responsibility towards club work which had brought them Did they decide to work hard so they would again gain the camping trips? No, but they had realized a new importance to a task well done and a reward well earned. Many of them have resolved to help others so that they might also earn such an honor another year. are local leaders of clubs themselves. So instead of feeling their task accomplished now that they have won the county prize, they are going on in the work to spread it to others, and make the quality of each thing done, the highest possible.

It is our firm belief, therefore, that the contest feature of club work is valuable and should be encouragd. The desire to get a lesson a little better, to run a little faster, to bat a ball a little farther is what helped our boys keep in the lead when they went "over the top" with our allies. But remember that a good loser is a better man than a good winner, because it is a harder game.

SUCCESSFUL AUTO EXCURSION

Two Day Trip A Boost For Club Work

No county money was ever spent to better advantage than that used in sending fourteen club winners on a two day automobile trip to the Massachusetts Agricultural College, July 29, and 30th.

Leaving early one morning the autos headed toward Amherst going via Framingham and Marlboro where a group of Middlesex County machines joined the party. The rest of the way out was via Worcester, Spencer, Palmer, Springfield, and then up the Connecticut River to Amherst.

Under the direction of the State Junior Extension Force, the club members were shown nearly all departments of the college, with emphasis on the live stock. The return trip was through Hadley, Sunderland, Deerfield, Greenfield, and then down the state road through Fitchburg to home.

The entire cost, outside of automobile expenses was not over \$1.50 per person. The value to the club winners can not be even estimated.

Towns which want to give their winners a valuable prize can well afford to think of this summer trip.

HEADING FOR THE "EASTERN STATES"

Pig Club Judging Team Sure, Competition In Four Other Projects

Norfolk County will furnish the state pig judging team at the Eastern States Exposition. This was decided at the summer conference at Massachusetts Agricultural College late last month. Demonstration teams in canning, market garden, poultry, and calf projects are also being trained and will compete with their county teams early in September for the privilege of going to Springfield as state delegates.

COHASSET WILL GET JUDGING TEAM

Mr. V. A. Rice, state agent, in charge of pig club work has been in the county making plans for a winning pig judging team. The three members making up the team will probably be chosen from the town of Cohasset, where considerable interest in the work has been shown. Mr. Rice, has spent two days with a group here and has them well grounded in hog judging fundamentals.







NORFOLK COUNTY AGRICULTURAL AND HOME MAKING BULLETIN



A CORNER OF THE MEDFIELD HEALTH CENTER

An amply equipped room where instruction will be given in home nursing, prenatal care, and the proper care and feeding of children

PUBLISHED BY

THE NORFOLK COUNTY AGRICULTURAL SCHOOL, WALPOLE, MASS.

VOL. II

OCTOBER, 1919

No. 22



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Entered as second class matter June 7, 1917, at the Post Office at Walpole, Mass., under the act of August 24, 1912.

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EDITORIAL BOARD MEMBERS OF THE STAFF

E. H. GILBERT, ACTING DIRECTOR

INSTRUCTORS

ERNEST D. WAID	NG ADVISOR
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JOHN T. DIZER	BOYS' AND	GIRLS'	CLUB LEADER
EUNICE H. HOMERASST.	BOYS' AND	GIRLS'	CLUB LEADER

TIMELY TOPICS

A mistake was made in the title of the frontispiece of the September bulletin. Instead of G. Eisenhaure being a former student of the Wakefield High School he is a Reading High School product.

Mr. Benjamin R. Graves, Poultry Instructor the past year, left us the middle of August. To fill the vacancy we have elected Mr. Roy T. Argood, a young man raised on a farm, graduate of the high school at Yonkers, New York, and the Poultry Course at Cornell University. He has been Manager of a commercial poultry plant in New York, vocational instructor of poultry husbandry at the Mooseheart Vocational School, Mooseheart, Illinois. He came to us from Morrisville, New York, where he was instructor of poultry husbandry in the New York State School of Agriculture.

Although the day, September 3rd, was very stormy several Norfolk County fruit growers were among those who visited the Marshall Orchards in Fitchburg. Mr. Marshall is now harvesting his largest crop of apples, taking them direct from the orchards to his cold storage which will accommodate 25,000 bushels. Everyone who goes to these orchards comes home believing more and more in the practice of all the good methods used by the owner. Every tree receives individual attention and is pruned, sprayed, fertilized and thinned according to its needs. The result is perfect fruit to harvest, store and market.

On Friday, September 5th, Warren Whiting, Harry Chase, Wesley Howes, of Bellingham, Wellington Bragg, C. H. Siggins, of Medway, and F. E. Gilmore, Thomas Proctor, John Senior, of Wrentham visited the poultry farm of F. H. G. Morse in Stoughton. Mr. Morse gave the visitors an opportunity to thoroughly inspect his plant and explained every detail regarding his methods of operation. The colony houses with their surrounding ranges and the parcel post packages used by Mr. Morse were most interesting to the party.

The discussions entered into by these poultrymen, most of whom are old hands at the game, brought up many timely questions which added to the benefits derived from a visit of this character. All claimed that the day was a very profitable one in that several good practices had been demonstrated by Mr. Morse which were applicable at home.

The potato crop in Norfolk County suffered from the blight and rot which spread very rapidly during the last of August and early September. The only fields we were able to locate which escaped were those managed by E. D. Waid, Lewis Farm, Walpole. Mr. Waid sprayed his potato vines at least six times during the season with bordeaux mixture, using a traction sprayer.

The peach grower had a pretty hard time of it this season. The wet muggy weather not only interfered with harvesting but was very favorable to the development of brown rot which destroyed from 30 to 50% of the fruit of the early varieties. Then the sugar shortage prevented many consumers from canning all they wished.

Many granges have held their fairs during the past month. These fairs have drawn the people of the community together to see the results of its agricultural population. Many of the exhibits of vegetables, canned goods, sewing and cooking were of a character worthy of exhibition in the county and state fairs.

The Farm Burean staff has enjoyed the work it has been called on to do in judging at the local fairs. There were times when it was pretty

close figuring to get to them all but with the assistance of the instructors of the Agricultural School it was possible to meet all requests.

The farmer who gets a large portion of his plowing done in the fall is the one who is prepared to get his crops in on time in the spring. Fall plowing allows the winter freezes and spring thaws to do a good share of the harrowing, besides killing many injurious insects.

The cows that eat the ensilage from the silos filled with corn raised by A. A. Boutelle of Canton this winter should have no reason for not doing their best. Mr. Boutelle plants his corn as early as possible in the spring, gives it the best of care and the result is a crop of sweep-stakes corn 12 to 14 feet tall with large ears well toward maturity at cutting time.

Mr. H. L. Mitchell of Medfield reports that he hatched 8,000 chickens with his electric incubators during the past season. The larger part of these chicks were sold as day olds. "The demand was so great for baby chicks that I could not meet it," says Mr. Mitchell.

Chickens like a secluded place to grow in. This is demonstrated by Burt Wells of Stoughton. His are raised in yards built in the woods where plenty of underbrush furnish protection from the hot sun and hawks.

Those who attended the poultry meeting at H. J. Hope's of Canton saw a fine display of fruit on the apple trees which furnish shade for his growing chicks.

The poultry culling demonstrations commanded more interest this year than those given the previous season. The average attendance was twenty-nine.

The three registered Berkshire sows owned by the Agricultural School had 22 pigs as their first contribution to its farm population. Some of these youngsters will be available to the farmers of Norfolk County at moderate prices.

The building used for school purposes the first year has been repaired and furnished and was opened as a boarding house for the boys when school opened with Mrs. Agnes I. Wallace of Foxboro as Matron.

The opening of School on Monday, September 22nd, showed a marked increase of students in the Freshman class over the past year with several letters of inquiry still to be followed up. The Sophomore, Junior and Senior Classes will return to school on September 29th.

AGRICULTURAL DEPARTMENT

CURING AND STORING SEED CORN

Seed corn should not be neglected after gathering by hanging it out of doors or in any place where it may freeze before it is fully dried or where it may absorb moisture from rain or a moist atmosphere. An open shed may answer for drying seed corn which is gathered early, but the safest place to cure seed corn is in a dry, well-ventilated room which may be closed in damp or cold weather, and in which artificial heat may be supplied when necessary to hasten the drying of the corn. A vacant room in the house may often be used as a seed corn drying room.

After it is thoroughly dried, seed corn will not be injured by severe cold, if it is kept in a dry place, but in moist air, dry corn may re-absorb sufficient moisture so that hard freezing may weaken or kill the germs, thus injuring or destroying the vitality of the seed. Caution should be used to the extent of protecting seed corn from mice and rats. This is not an easy matter and requires the use of wire crates, hangers, poisons, etc.

When only a small quantity of seed corn is saved and suitable, room and place is afforded for curing it; the old method of hanging the ears by the husks is a good one. Some farmers prefer to strip off all husks and tie the ears together with strings and hang them over wires supported from the ceiling. The cording-string method is a quick and economical way of hanging seed corn. The wire hangers and spike hangers also give satisfaction, and seed corn drying racks may be successfully used. The main point is to give the corn plenty of space and a free circulation of air. The curing seed ears should not touch each other. A room too warm and moist at the start in curing may cause the new corn to sprout at once, thus destroying its vitality.

SOIL FERTILITY AND THE COST OF LABOR

"The rapid rise in farm labor prices has given soil fertility an importance even greater than it had before. It has exaggerated tremendously the difference in earning power of rich and thin lands. It has made it impossible to crop some infertile soils profitably in any but the crops that require very little work. The man with the poor soil who gets 100 bushels of potatoes per acre is earning often, less than half as much per hour as the man who gets 200 from his highly productive fields or, if he pays the going wages, has little left with which to pay for seed, land, tools, horses and the other items of expense."

-Conn. Agr. College Press Bulletin.

EXPERIENCE WITH EARLY HATCHING

Those who attended the Poultry Culling Demonstration at Mr. Burt Wells' in Stoughton, on August 21, were pleased to have a few words from Mr. Frank H. Morse, one of their progressive poultry keepers on the subject of early hatching. Mr. Morse said that every poultry raiser should strive not to raise undesirable hens by hatching his own or purchasing early hatched chickens. March and early April chicks are much better than those that come later. The later they are hatched, the less they are worth from all standpoints. Be well equipped to care for these early chicks. This means artificial methods and the use of incubators and brooders.

Mr. Morse further stated that he had been working to get early layers and had succeeded in having his four and one half months Rhode Island Red pullets begin on August 15th this year. When questioned as to the fall moulting of these pullets he replied by saying that they had laid and kept up the supply of eggs when his old hens were shutting down, that the number of eggs laid more than paid for their keep during the time they stopped and they resumed laying very early and made fine stock to breed from. By testing old hen and pullet eggs in the same incubator. Mr. Morse claimed that his old hens' eggs showed a trifle more fertility but that the pullets' eggs hatched a bit better.

He found that where early hatched pullets would lay at four and one half to five and one half months old for the reason that maturity is hastened by the natural incentive to early feathering and the quicker growth due to cool weather and tender vegetation, May and June hatched would often attain seven and eight months of age before laying.

In concluding Mr. Morse said that by hatching 22 days earlier this year than last, he had gained 35 days in the time his pullets started to lay or in terms of eggs he had gained 1422 eggs.

NICHOLS BOYS MAKE A RECORD WITH 25 WHITE LEGHORNS

Rudge and Hollis Nichols, West Roxbury, boys of 13 and 14 years of age, write to J. H. Tilton, Needham, of whom they purchased 25 white leghorn pullets last October giving the following facts regarding their record.

Our hens have laid an average of 148.20 eggs per hen to August 1st. Our total up to date (August 7) is 3,817, giving us \$108.00 profits to divide. We got \$.05 more per dozen than the local egg man.

Under date of August 2 a newspaper clipping gives the champion pen of Barred Rocks in the Essex County Agricultural School egg laying contest owned W. W. Lord of Danvers as 1476 eggs, an average of 147.6 per hen.

These boys should be proud of this achievement. What they have done, others can do provided they like poultry and give it the detailed care necessary.

The fine second crop of clover that has been harvested this fall by some of our dairymen makes them smile with satisfaction when the merits of clover hay are compared with those of herds grass and common stock hay.

CROPS INJURED BY POTASH CONTAINING TOO MUCH BORAX

During the last few weeks the United States Department of Agriculture has received many complaints regarding injury to crops apparently resulting from the use of potash from Searles Lake, Calif. The natural brine of this lake from which the potash salts are prepared contains a considerable amount of borax. Apparently one, at least, of the companies operating in the locality did not exercise sufficient care in the preparation of the potash and let out a considerable amount of potash salts in 1918 with a high percentage of borax, averaging probably 10 per cent. and in some samples going as high as 23 per cent.

The department has been conducting careful investigations of the matter in the field and these investigations indicate the substantial correctness of many, at least, of the complaints. In some of the special fertilizer tests of the department where Searles Lake potash was used, injury, which, apparently was the direct result of the high percentage of borax, was clearly shown, while potash from some other sources showed beneficial effects upon the crops tested.

HOME MAKING DEPARTMENT

HEALTH CENTER IN MEDFIELD A COMMUNITY ASSET

Possibilities for Giving Public Health Instruction Unlimited

Not every community is so fortunate as to have a public health center, but in no community is a center of this kind impossible. A very fine example of what may be developed along this line has been demonstrated in Medfield where the district nurse has obtained a room in a central part of the town, solicited donations of equipment, and with untiring effort and interest has fitted up a demonstration room for the purpose of giving health instruction to girls and women.

A very attractive and telling set of health and tuberculosis charts have been loaned the Health Center by the Farm Bureau office. These charts not only add to the attractiveness of the room but aid materially in emphasizing many vital health facts.



With this equipment home nursing can be demonstrated and practiced.

Definite hours will be reserved each week when the district nurse will be present at the rooms for conference with the townspeople on subjects concerning health. At other times, classes for instruction will be held in home nursing, emergency nursing, prenatal care and the proper care and feeding of children. Ample equipment for this instruction has been donated by interested people. The accompanying cut and the cover cut show the equipment used in the demonstrations on child care and feeding and the necessary equipment for the home nursing and emergency nursing courses. Classes in first aid nursing have already been given to groups of Girl Scouts and plans are under way for future classes with these groups.

With a center of this kind in a community, very excellent possibilities are presented for working out health instruction to be included in the school curriculum. Every girl graduating from High School should have received somewhere in her course a training in first aid, home nursing, and child care. The lack of equipment and means for instruction often make this seem prohibitive. Where a community is so organized that these difficulties are overcome, it would seem that every effort should be made to use these possibilities to their fullest capacity by townspeople and all cooperating agencies.

NORFOLK COUNTY RECIPES ARE GOOD!

They Are Being Tried and Adopted by Many Women

Cranberry Catsup

1 quart cranberries

1 c. water

2 c. vinegar

4 whole allspice

1 T. broken cinnamon

few cloves

NOTE:--1 t. ground cinnamon and

1 t. clove may be used instead of whole spice.

Tie the spices in a muslin bag. Simmer the above ingredients until soft. Press through a colander, add 2 c. brown sugar and simmer ten minutes longer. Seal in sterilized jars or bottles.

MRS. JOSEPH LEACH, Walpole.

Pepper Relish

1 doz. green peppers

1 doz. red peppers

 $\frac{1}{2}$ doz. onions

4 T. salt

3/4 c. brown sugar

MRS. O. L. SCHUBERT, Plainville.

Remove the seeds from the peppers and chop the onions and peppers fine; add salt and cover with boiling water. Let stand until cool, drain, put on stove with sugar, and let come to the boiling point. Cover with cold vinegar and put in air-tight jars.

Apple Butter

1 peck ripe cooking apples

1½-2 pounds sugar

2 gallons cider

Wash the apples, remove all bad spots, and cut into quarters or slices. Place the pieces of fruit in a porcelain or aluminum vessel, add 3 or 4 quarts of the sweet cider and heat to the boiling point. Continue to boil until the fruit is reduced to a pulp. Meanwhile place remainder of sweet cider in another similar vessel and boil down to 1 quart. Pour the cooked fruit into a sieve or colander, and, using a cup or fruit jar, force the pulp through. Return the pulp to the cooking vessel, add the remainder of the cider, and cook with constant stirring until it begins to thicken, which will be shown by the sputtering of the boiling product. Add the sugar and continue the cooking until the desired consistency is

obtained. This last cooking process will require two or three hours. If a spiced product is desired add 3 t, of ground cinnamon and 2 of ground cloves just before removing from the fire. Fill the hot butter into sterilized glass jars and seal. About 4 quarts of finished product should be obtained from this recipe.

If a tart butter is desired to be used as a relish instead of a spread omit the sugar.

Apple butter made in this way is an excellent substitute for the rich jellies and preserves so commonly eaten.

If cider is not available, add enough water in beginning to start cooking and proceed as directed.

A Famous Welsh Rarebit

½ lb. mild cheese	2 T. flour
1 egg	2 c. milk
2 T. butter substitute	½ t. salt

⅓ t. paprika

Cut the cheese into small pieces and melt slowly with the butter. Scald the milk and to it add the egg, flour and salt beaten together. Cook the mixture stirring constantly until thick. Add the melted cheese and butter. Beat the combined mixture vigorously with an egg beater. Add paprika and serve on hot toast or crackers.

MRS. F. B. BROOKS, Holbrook.

Crab Meat and Rice Casserole

4	1.	butter substitute	or evaporated mink is used)
4	T	butter substitute	or evaporated milk is used)
1	1b.	canned crab meat	6 T. milk (better if ½ cream

3 T. lemon juice paprika

Flake crab meat, add butter, lemon juice, paprika, and milk and bring to a boil. Add $1\frac{1}{2}$ c. boiled rice. Put all in a casserole, cover with buttered crumbs and bake until brown. This is just as delicious with lobster.

MRS. O. A. BLAISDELL, Wollaston.

Peter Pans

¼ c. Crisco	1 t. cinnamon
½ c. brown sugar	1 t. vanilla
1 egg	1 t. soda
½ c. molasses	2 c. flour
$^{2}/_{3}$ c. slightly sour or sweet milk	nuts and raisins

Mix and bake in drop cake pans.

MRS. O. L. SCHUBERT, Plainville.

Lemon Pie

Moisten two heaping tablespoons of cornstarch with cold water. Add two cups boiling water and cook two or three minutes. Add two teaspoons of butter substitute and two cups sugar. Beat well. When cooked add 2 eggs and juice and rind of two lemons. Bake with two crusts. Enough for one large pie or two small ones,

MRS. A. E. BARNES, South Weymouth.

ITEMS OF INTEREST

Have you investigated the lunch conditions in your schools? Are there 10 to 50 children eating a cold lunch there every noon? If your child is among the number, you should be concerned regarding his health. The enjoyment which one derives from eating a meal affects directly the ease and completeness with which the food is digested. The quantity eaten is also dependent upon the appeal which the food has for the individual. A short experience in eating a cold lunch is usually sufficient to prove to one that a cold mid-day meal is not only monotonous but soon becomes obnoxious and as the season advances, less and less is eaten. A cup of hot cocoa or soup with the lunch helps to make it more palatable and nutritious. Teachers tell us that the pupils do better mental work also when a warm lunch is served.

The Home Demonstration Agent visited 14 warm school lunches in the county last winter and helped in organizing three new lunches. In every case local women's committees were helpful in organizing and carrying on the lunch. Every town has a different problem requiring a little different organization, but in no town are the problems so complex that the warm lunch should be considered an impossibility. Committees from Granges, Woman's Clubs, and Parent Teacher's Associations can well take up for their winter's work the matter of serving the warm dish to the school children who are carrying a cold lunch in their town.

The Home Demonstration Agent will gladly help you in organizing this work.

The Clothing Efficiency Work which Mrs. Reed gave in two towns this past spring proved to be so popular and so far reaching that 13 towns have asked for clothing efficiency classes this fall. The original members of the two classes have already given this information to forty other women. Mrs. Reed will return to these two groups this winter to give an advanced course in Clothing Efficiency.

The work which Mrs. Reed gives is no ordinary course in dressmaking. The slogan of the course is the elimination of waste time and motion. It teaches the possibility of adjusting a simple French waist pattern to fit all types of figures, drafting a five-gored skirt from measures and adapting this pattern to a two, three and four-gored pattern, making a dress to fit the individual figure without a try-on, making simple undergarments, and various short-cuts in finishes.

Since Mrs. Reed is holding the same number of classes in every county throughout the State, it makes it possible to have only a very limited number of classes in each county. We expect this coming year to have Mrs. Reed for only one new class and this class will not be held before spring. The Home Demonstration Agent has taken the course with Mrs. Reed and has prepared herself to give this information to groups of women.

The organization of the work in the 13 towns that have requested it will be taken up this month and the work started as early as possible. The number of lessons in the course will depend upon the length of the lessons. If a three hour lesson is given there will probably be ten lessons

in the series. There is no expense connected with this course, but it is expected that the people taking the course will do so with the intention of passing it on to other women.

Mrs. Reed will come to Norfolk County, October 21 and 22 to meet with the Walpole and Franklin Efficiency Clubs. These Clubs were formed as an outgrowth of Mrs. Reed's work last spring for the purpose of carrying on the work in an organized way to other women. An all day session will be held with each club to review the work done, discuss difficulties encountered, and take up advanced work. The Efficiency Club members are urged to be present and all people who have completed the course under their instruction are invited to attend these meetings as observers.

Requests have already come from two towns for classes in millinery this winter. The Home Demonstration Agent is in communication with two people who have been holding very successful millinery classes in other sections of the State and we expect to be able to make arrangements for classes of this nature in Norfolk County at a very reasonable cost.

A woman who is in a position to make and trim her own hats can reduce her clothing budget decidedly at the present time. An item in one of the western County Farm Bureau Publications stated that small groups of women in five towns made and remodelled hats during the spring which totaled an approximate value of \$200. The Home Demonstration Agent will help you in arranging for this course if you are interested in it.

JUNIOR EXTENSION DEPARTMENT

CANNING CLUB EXHIBITS A PART OF FALL FAIRS

Whenever a fall fair is held in a town where a canning club exists, an attempt is made to combine the club exhibit with the fair. Usually small prizes are offered by the Grange or the committee in charge.

Last year many of the fall exhibits were cancelled on account of the influenza epidemic which was prevalent. This year better results are hoped for and extensive arrangements for improving the quality of the local fairs have been made.

The dates on which these fairs and exhibits are to be held range from early September to October 15th. They are well worth attending and the display of children's work is an eye opener to the public.

Randolph held the first grange fair in the county on September 5. It was most successful and very largely attended. In Braintree the fall fair came September 17th. A Canton Grange fair was held on September 19th. Cohasset boys and girls were awarded many generous prizes at the combined canning and vegetable display held on September 26th. The Dedham Grange continued the interest which it has always had in the children's work by again awarding prizes to those who showed the best vegetables and canned products at the local fair September 18th and 19th. The Foxboro Grange will make room for Junior interests at their fair scheduled for October 8. Holbrook combined the canning club exhibit with a harvest festival on September 25th. Medway held a small exhibit in the High School of work done by the club members on October 3d. Although small in number of members the clubs have made up in spirit and have proven a valuable asset to the community.

The annual Needham Fair was held September 25th and 26th. As usual the children's work made up a large part of the exhibit material. The Norwood and Walpole canning clubs used the unique plan of exhibiting in a store window in the centre of the town where much attention was attracted. This was accomplished through the generosity of the tradesmen who loaned their windows for the occasion. Stoughton held two separate fairs, the grange which came September 22 and the children's agricultural exhibition September 26th. Weymouth is to hold a canning exhibit in conjunction with the Woman's Club meetings in October, since no provision was made for these at the Weymouth Fair. That finishes the fall exhibit season in Norfolk County.

TO CAMP VAIL AND BACK AGAIN

Norfolk County Boys and Girls at the Eastern States Exposition Exhibit— Demonstration and Judging Achievements

The long heralded Eastern States Exposition of 1919 is a thing of the past. Camp Vail—the mecca of boys' and girls' club work—has served its purpose and is closed for another year. Club members from Maine to Delaware visited there a week, gave of their knowledge and inspiration, absorbed more themselves and went back to their own communities, taking with them a bigger, broader, and better idea of 4 H club achievement.

Norfolk County sent seven club members as official delegates to represent Massachusetts in the interstate competitions. Here is the list and here is what they did:

Cohasset sent the state pig judging team composed of Mary Modent, Lawrence Poland, and Charles Jason. They placed second as a team in a field of ten, only three points below Pennsylvania.

The calf and garden demonstration teams went from Weymouth. The calf team was made up of Thomas Chisholm and Frederick Prize. Adrian Barnes and Walter Cope composed the garden team. Both of these teams previously won the state championships in competitions at Worcester.

The calf team won first in its project and the garden team third. In addition the garden team entered the handicraft demonstration contest and won second place. In handicraft judging the two members of the calf team joined with another Massachusetts boy and ranked second. Adrian Barnes went in as an emergency substitute in vegetable judging and helped the team get fourth place.

The final prize came when Thomas Chisholm placed third in a field of 54 contestants in the individual cattle judging contest. As a prize he received a registered guernsey heifer calf given by the Oaks Farm of Cohasset. Thomas was the only Massachusetts boy to place in the first seven. First place went to Pennsylvania, second to Vermont, and the others went three to Pennsylvania and one to Delaware.

Norfolk County exhibits also came in the prize column. Helen Findlen of Dedham won a first on plums and a fourth on corn. Rose Sopp of Norwood won first on chicken, soup, and meat—a jar of each. Dorothy Healey of Needham ranked fourth on peaches. Elinor Menchin of North Weymouth won a fourth on peas, and Mary Griffin of Medfield, a fourth on blueberries. In the home economics club section, Alice Ingraham of Millis won a third prize on hand made garments.

Several other Norfolk County club members visited Camp Vail and took part in the camp activities.

MIDDLESEX AND NORFOLK DIVIDED HONORS

Each Took Two Firsts in Demonstration Competitions at Worcester

Norfolk County garden calf club demonstration teams triumphed at Worcester. Middlesex equalled the score by winning in canning and poultry. The Middlesex County poultry demonstration team handled the difficult problem of caponizing in splendid shape. Norfolk County stood second in poultry with its demonstration on the control of lice and mites.

The winners in all the contests represented Massachusetts at the Eastern States Exposition and earned prize medals there.

Massachus sotto

NORFOLK COUNTY AGRICULTURAL AND HOME MAKING BULLETIN



PROTECTED FOR THE WINTER
MICE AND RABBITS CANNOT INJURE THIS TREE

PUBLISHED BY

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WILLARD A. MUNSONCOUNTY AGRICULTURAL AGENT
STELLA S. SIMONDSHOME DEMONSTRATION AGENT
JOHN T. DIZERBOYS' AND GIRLS' CLUB LEADER
EUNICE H. HOMERASST. BOYS' AND GIRLS' CLUB LEADER

TIMELY TOPICS

Don't fail to protect your trees from mice and rabbits. It costs but a little to put on wire guards or wrap the trunks for a dozen inches up from the ground with building paper. This small cost for safety may mean the saving of trees worth, (Well, you know what you value young fruit trees at.) It may also save you the trouble when next spring comes of looking up someone to do bridge grafting.

Norfolk Pomona Grange No. 27, Patrons of Husbandry, met at the School on October 17th. After the business session in the forenoon Miss Stella S. Simonds gave a very interesting illustrated talk on "The Warm School Lunch." At noon Caterer Holman furnished a collation to which all did justice in true Grange style. The afternoon program was furnished by the school. Two Seniors, Henry Egner and Nelson Pratt, tested milk

samples with the Babcock test, explaining the method as they worked. Joseph Roche, Jr., a Sophomore, gave a talk on corn selection and exhibited a 100 ear test for germination. Roy T. Argood, Poultry Instructor, gave a talk on "The Use of Lights to Increase Egg Production." Two young men from the Weymouth Department who won the state championship at the Eastern States Exposition at Springfield gave a calf demonstration. We extend to the Lewis Farm our thanks for the loan of two calves for the occasion. The program was interspersed with vocal solos by Henry Egner, songs by the school and grange and the school yell.

If you have not looked your young trees over for borers it would be a good plan to do so. Borers cause considerable damage, often resulting in the death of the tree. It takes but a short time to locate them at the base of the tree trunk by the presence of sawdust droppings. If they have gone so far into the tree that it is difficult to dig them out with a knife, destroy them by probing with a wire. Send to the United States Department of Agriculture for Farmers' Bulletin Number 675. It is the best thing on "The Round-headed Apple Tree Borer."

The School has purchased of Edwin T. Cobb fifteen acres of land bordering the school property on the westerly side. This land adjoins that of Messrs. Nichols, Brandley and Bentley and borders on Gould Street for over one thousand feet.

Permanent roadways are being laid out on the farm and work on the same will be continued as time permits.

The stingy feeder cheats himself as well as the cow. The cow requires not only materials for maintenance, but must also have protein, fat, and carbohydrates to make milk from. The milk contains water, fat, protein (casein, or curd), sugar and ash, and these are all made from the constituents of the food. If insufficient protein, fat and carbohydrates are contained in the food given her, the cow supplies this deficiency for a time by drawing on her own body and gradually begins to shrink in quantity of milk.

Feed the dairy cow during the rest period so that she will be in good flesh at the time of freshening. If in good condition she has an opportunity to keep up a rich and heavy milk flow from a well prepared machine. The dairy machine like any other must be in the best repair if the greatest results are to be secured.

A report from the Weymouth Department shows an enrollment of twenty-one boys, the largest number since the Department was established.

Provide the poultry with plenty of green feed as it is necessary if the best results are to be obtained. If your supply of cabbages, beets, or mangels is not going to be sufficient to carry the flock until spring, now is the time to purchase additional quantities which can be stored until needed.

Specialists of the United States Department of Agriculture advise poultry keepers to feed about 1 quart of scratch grain and an equal weight of mash (about 1½ quarts) daily to 13 hens of the general purpose breeds, such as the Plymouth Rocks, Rhode Island Reds or Wyandottes, or about 16 hens of the smaller or egg breeds. This would be about 7½ pounds

each of scratch grains and of mash daily to 100 Leghorns and about 9½ pounds of each to 100 general purpose fowls. If hens have free range or large yards containing green feed a general purpose hen will eat about 75 pounds of feed in a year, while a Leghorn will consume about 55 pounds in addition to the green stuff which she eats.

At this time it is very important that all farm animals are properly housed for the winter. Be sure their quarters are clean, well lighted and comfortable. Ventilation must be provided for. Avoid drafts. Proper housing means economy of feed, usually less labor and invariably a better animal next spring.

It is advisable to take a look around the farm, the mowing machine, horse rake, tedder, etc., may not be under cover. It is poor farming to leave any implement out of doors all winter.

Winter will soon be here. Attend to any needed repairs to the various farm machines. A coat of paint is always a good investment and all bright spots such as mouldboards and points of the plow should be rubbed over with an oily rag to prevent rust.

Manure is getting scarcer and more expensive each year. Take care of the manure pile and see that the liquid portion does not leach away and become lost. Barnyard manure is decidedly improved by adding some acid phosphate, about fifty pounds per ton of manure.

As soon as the ground is frozen enough to bear the weight of a man it is time to cover the strawberry patch. Some people use leaves, corn stalks or meadow hay but if pine needles can be procured they are preferable, being clean, light and easily applied. Do not cover the plants too deep or they will smother. Use just enough to prevent heaving of the soil during alternate freezings and thawings which breaks the root system.

Hon. George M. Plimpton, owner of the Lewis Farm, was the guest of the School at the Pomona meeting on October 17th.

Lime, used freely in the hog house and yards, keeps them sweet and sanitary. The cleaner and more sanitary the yards, houses and pastures the smaller will be the losses from diseases and vermin. Never lose sight of the fact that the producer pays for all these losses in the end, and that "an ounce of prevention is worth a pound of cure."

Work is progressing on the new dairy barn. The foundation is well under way and lumber and other materials are arriving daily.

AGRICULTURAL DEPARTMENT

COUNTY AGENT ON MONTH'S LEAVE

Mr. Munson Crosses Continent as Representative of the Massachusetts Agricultural College Alumni Association

County Agent W. A. Munson spent the month of October on a cross-continent trip in the interest of the Massachusetts Agricultural College Memorial Building fund. His program took in visits to groups of alumni at Cleveland, Ohio; East Lansing, Michigan; Chicago, Illinois; Bozeman, Montana; Berkeley and Los Angeles, California. Reports from the west say his visit has been received with great enthusiasm and funds to back up the enthusiasm. Mr. Munson will be back early in November to take up his county agent work again.

IMPROVE THE HERD BY RAISING GOOD CALVES

If calves are to be raised from the dairy herd no excuse is reasonable for the use of a scrub bull. There is a heavy loss to the dairyman each year through the use of a scrub sire. He is the most expensive animal in the herd and is a loss to any farmer who perpetuates his herd by raising the heifers from it or from those of other herds headed by such scrubs. It would be legitimate to sell two or three cows in order to have a pure-bred sire at the head of the herd from which the heifer calves are raised. A well selected pure-bred sire is an economical investment and will return a high rate of interest.

COWS HAVE A REASON FOR KICKING

Lack of careful observation and kindness on the part of the attendants make many good cows confirmed kickers. When a cow kicks there is usually a reason for it. The teats may be hurt by the milker or the cow may be frightened. At such a time a little care in removing the cause and pacifying the cow will often prevent further trouble. The dairy cow is naturally of a nervous and excitable disposition and when annoyed by unusual disturbances the milk flow is materially lessened. Treat her with consideration and she will pay for it many times.

THE USE OF LIGHTS TO INCREASE WINTER EGG PRODUCTION

The use of artificial lighting to increase winter egg production is a well established practice on many poultry plants to-day. This is an effective and efficient method of producing eggs during the short days of winter at which time it is generally a difficult matter to secure a high egg production.

Many methods of lighting poultry houses are in use. The most general way is to put a sixty watt light in each pen of one hundred fowls which should measure approximately twenty feet square. Gasoline lanterns, which have been put on the market to some extent recently, are also used. The ordinary kerosene lantern has been used with good results in a small sized pen.

The idea is to furnish sufficient illumination to light up the pen well so that the fowls may be able to search for food. To make the pens still brighter, some poultrymen make a practice of white washing the walls. As this also helps to make the house more sanitary it is to be recommended.

Different methods of using the lights are in practice, but this does not seem to influence the results obtained. The principal thing is that the fowls should have at least twelve hours of daylight.

Some poultrymen use lights for a short period in the morning before daylight and then a short period at the end of natural daylight until perhaps 7.30 o'clock. Some use the lights for a prolonged period in the morning or in the evening, the idea being to furnish twelve hours or more of "daylight" in which the fowl may find an increased amount of food.

Perhaps the most convenient method would be to turn the lights on at 4.30 o'clock in the afternoon when the days are short and then turn them off at 9.00 o'clock in the evening. The usual practice is to dim the lights before turning them completely out in imitation of nightfall so that the fowls may find their way to the roosts.

In the management of the flock under the influence of lights it is well to give the last feeding of grain an hour or two before turning out the lights if they are used in the evening. Dry mash should be supplied and kept at hand all day unless the fowls form the habit of wasting it. Plenty of green food and fresh water as well as grit and oyster shell should be supplied.

The usual date of starting the use of lights is about the first of November and continuing to the first of April. It is not considered good practice to use artificial illumination on breeding fowls except perhaps for a period of from two to three weeks in February to start the breeders to laying in case early hatching eggs are desired.

It is hoped that those desiring to secure a large egg production in the winter months will give the method a trial. At least it would be a wise plan to try out the method on a small flock with the aid of a kerosene lantern. As a matter of interest it might be well to keep accurate account of the increased egg production from the "lighted" pen.

Mr. F. D. Woods, Superintendent of the Wellesley College grounds, recently sent us the results obtained from tests made by using lights during the short winter days in a portion of the poultry houses of the College plant. From his figures we have made the following deductions:

"Lights" versus "No Lights" at Wellesley

Extent of period used—From November 17, 1918, to February 10, 1919.

	Lights	No Lights
Average number of hens	965	146
Total eggs produced	27,065	3,284
Average number of eggs per hen	28.04	22.49
Average price received per dozen	\$0.8233	\$0.8233
Average price received-per egg	0.0685	0.0685
Number of eggs increase per hen in lig	ghted pens	6.55
Increase return per hen in lighted pen	S	\$0.45

Conclusing: A profit of \$.45 per hen was realized in the lighted pens in excess of that received from the pens without lights, not including the cost of current.

ENCOURAGE LAYING HENS TO TAKE EXERCISE FREELY

During the spring season fowls having free range get abundant exercise. Close confinement without exercise is not conducive to the best results, although the feed provided may be the best, for idle hens soon grow too fat to lay. It is almost impossible to give laying hens which are confined too much exercise. The fowls may be encouraged to exercise in various ways, such as feeding corn on the cob, suspending cabbage heads, beets, etc., so that the birds have to jump for them, and scattering grain in the litter. The litter should be from 4 to 8 inches deep, and may consist of straw (either cut or whole), hay, leaves, buckwheat hulls, shredded corn fodder, or any convenient material of this nature. The hens should be kept hungry enough so that they will work diligently all day for the grain, scattered in this litter, which should be removed whenever it becomes damp or soiled.

THE PREPARATION OF BEES FOR OUTDOOR WINTERING

One of the most important problems confronting the beekeeper is that of proper wintering. At least ten per cent. of the colonies wintered over each year are lost and sometimes as high as fifty per cent. or more are lost in certain sections.

Three essentials for success in the wintering of bees are: (1) there should be plenty of stores of good quality, (2) the colonies should be protected from wind and cold, (3) there should be room for the rearing of brood at appropriate times.

Each colony should have brood enough to fill three or four Lanstroth frames and any colonies that are not of the proper strength should be united at least two weeks before packing is begun.

In order to pack the colonies economically they are often placed in groups of four. If it is desired to pack them in this manner the hives should be so arranged that they may be placed under cover with little or no moving; that is, the hives should be left in the same position the year round as near as possible. It is well in this method of packing to have each four hives on a permanent stand which is built strong enough to support the four hives. A stand made of two inch by four inch material ought to be strong enough.

For our climate, eight inches of good packing on the sides, one foot on top, and four inches under the bottom is to be preferred. It is essential that the bottom packing be put in place since many colonies are lost each year because of insufficient packing on the bottom. For the packing material, well dried forest leaves, chaff, sawdust, broken cork or shavings are used.

A simple packing case may be made of four sides using % inch material tongued and grooved with a top to fit. The top or cover to the case is made to "telescope" or fit tightly over the sides when in place. Roofing paper is put on the cover to protect the packing from becoming wet. The sides of the case are then painted as a further means of protection from the weather.

In order that the bees may leave the hives to carry out the dead which would otherwise accumulate during the winter a passageway or "tunnel" is made of two boards held apart by strips three-eights of an inch thick. After the entrance of the hive is reduced by means of a block of wood or other material the passageway is put in place so that

the bees may pass from the entrance of the hive through the packing space out into the open. By means of the packing and reduced size of the entrance to the hive, the heat of the colony is conserved which reduces the danger of winter killing. If it is not desired to pack the colony in groups of four, it is sometimes possible to utilize large size boxes that are on hand to pack one or two hives as the case may be.

Such packing should be put in place about the time of the first frost in the fall of the year. A common error is to wait too long before putting the packing in place. It should at least be put on after the last essential handling of the bees.

HOME MAKING DEPARTMENT

RECIPES FOR THE THANKSGIVING DINNER

Contributed by Norfolk County Women

Stuffing for Roast Chicken or Turkey

Soak stale bread in water. Place in a cheese cloth and squeeze to remove water. Brown 1 onion in 1 T. butter substitute. Add bread crumbs and fry two minutes. Add salt, pepper, and sage to taste and 1 beaten egg.

MRS. O. L. SCHUBERT, Plainville.

POTATO DOUGHNUTS

Beat two eggs until very light, add 1 cup sugar and beat again. Add 1 T. melted shortening, 1 cup freshly mashed potato, 3/4 c. sour milk, 1/2 t. soda mixed in the milk, 3 cups bread flour and 4 t. baking powder sifted together, 1 t. salt and a grating of nutmeg. If necessary, add more flour to make stiff enough to roll out.

SPICE PLUM CAKE

34 c. white or light brown sugar1/2 t. cinnamon3 T. molasses1/2 t. nutmeg5 T. melted shortening1/2 t. allspice1/2 t. salt1/4 t. clove

Combine the above ingredients, beat well and add 1 c. sour milk. Sift 1 t. baking soda with 1% c. flour. Add to the batter and beat thoroughly. Add 1 c. floured raisins and bake in a moderate oven % to 1 hour.

MRS. A. H. MENCHIN, North Weymouth.

HOT WATER PIE CRUST

Place 1 c. shortening in a mixing bowl and pour over it 1 c. boiling water. Stir until creamy. Sift together 5 cups pastry flour, 2 t. salt and 1 t. baking powder. Add dry ingredients to the liquid and if not soft enough, add a little more boiling water. This makes crust for four medium sized pies.

MRS. F. W. BANCROFT, Randolph

MINCE MEAT

2 pints chopped meat 1 package seeded raisins
6 pints chopped apples 1 package seedless raisins
2 pints molasses 2 pounds sugar
1 pint vinegar 1 T. salt

1 pint cider 2 T. each of cinnamon, clove, and ½ pint oleo nutmeg

½ pint suet 1 t. ginger

Grated rind and juice of two lemons and one orange

Add all but the meat and spices and boil twenty minutes.

Add the remaining ingredients and bring to the boiling point.

MRS. F. B. BROOKS, Holbrook.

SUET PUDDING

1 c. chopped suet ½ t. clove, cinnamon, nutmeg. and

1 c. chopped raisinssalt1 c. milk1 t. soda

1 c. molasses 2 c. flour

Mix ingredients and steam three hours.

MRS. CHARLES BREEN, Plainville.

HOUSEHOLD MANAGEMENT PROGRAM IS INTERESTING TO CLUB MEMBERS

Homemaking Department of Walpole Woman's Club Arranges A Monthly Program

Twenty club members attended the first meeting of the Homemaking Department of the Walpole Woman's Club and signified their intention of joining the department. The household management program arranged by the committee presents subjects of interest to the housewife who is interested in improving the organization of her home. We take pleasure in printing the winter program thinking that it may be suggestive, in part at least, to other clubs who are considering meetings of a similar nature.

PROGRAM

October—Public Health and Standards of Living

Miss Laura Comstock

November-Convenient Kitchen Arrangements

Hostesses-Mrs. Carroll Smith, Miss Cora Crossett

December-Household Accounts

Miss Laura R. Gifford

January-Club Afternoon

February-Thrift in Marketing

Miss S. Agnes Donham

March-Electrical Equipment in the Home

Demonstrator, Edison Electric Company

April—The Servant Problem

Hostess, Mrs. Ernest D. Waid

WHERE DOES THE DOLLAR GO?

Series of Talks and Demonstrations to be Given Norwood Women by Assistant State Home Demonstration Leader

Norfolk County is to have Miss Laura Gifford of the Massachusetts Agricultural College for a series of lectures and demonstrations on every day food and household management problems confronting the housewife. At the request of the Homemaking Department of the Norwood Woman's Club this course will be given in Norwood for the benefit of its club members. Following is a program of the course. A similar series may be arranged at some future time in other towns where there is sufficient interest to organize a group.

- 1. Where does the dollar go?
 - A discussion of the value of household accounts and a simple account book.
- 2. Meat cutting demonstration.
 - Showing the location and relative value of different cuts of meat.
- 3. Demonstration of the use of cheaper cuts of meat.
- 4. Demonstration of the use of left over meat.
- 5. Planning a week's grocery order for a family of five.
 - a. Changing the order to reduce the cost and maintain the same food value.
 - b. Changing the order to retain the cost and increase the food value.
- Planning meals for a week based on the above order. Menus changed to give variety.
- 7. Foods for the children.
- 8. Household appliances that save time and labor.
- 9. Making the budget.

ITEMS OF INTEREST

Interest in the clothing efficiency courses seems to be county wide. The Home Demonstration Agent is filling requests for this work as quickly as possible and classes have already been formed in Randolph, Foxboro, Walpole, South Walpole, Bellingham, South Bellingham, and Medfield. In most instances the class will be limited to 8 members and after receiving the course of 10 lessons they will serve as teachers in their communities giving the information to other women. The largest class which has been organized is from the Walpole Business Woman's Club. Twenty-eight members from this club meet Thursday evenings at the Community House to receive instructions from the Home Demonstration Agent and three members from the Walpole Efficiency Class.

The mounted health charts which the Home Demonstration Agent loans to the district and school nurses in the county are now in Holbrook. The nurses who have used the charts have found them very helpful in giving health talks to the school children. We want to keep the charts in constant circulation throughout the county. When would you like them in your town?

There seems to be a constant, upward trend in prices at the present time. Perhaps we are becoming too accustomed to them and have formed the habit of accepting prices without a question. Let us acquire an investigating disposition and determine whether or not we are vaying a legitimate price for the goods purchased. The Commission appointed to investigate the necessities of life, having its headquarters at the State House in Boston, will supply you with a standard price list which you may compare with the local prices. Send to the above address for this price list and inform yourself of the prices that may be legitimately charged.

Everyone is interested in schemes which will help in reducing the cost of living. If you have made a discovery be sure and pass it along for other people to benefit by. The following suggestion was given to the Home Demonstration Agent recently by a woman who has found it worth

while. Feed sacks of heavy cotton material make excellent trousers for small boys and when colored navy blue, they are not only practical, but good looking. Three pairs of trousers may be made from two sacks. Very durable nightshirts for small boys may also be made from feed sacks of lighter weight material. These possibilities are well worth trying out with cotton cloth at the present high prices.

If your club or study group is studying any phase of home economics subjects and would like more recent literature on the subject than your library can furnish, the Home Demonstration Agent will procure for you one of the State travelling libraries. These libraries are owned by the Mass. Agricultural College and are loaned throughout the State whenever there is a demand for them. There are ten or twelve books in the library and since they are the property of the State, they may be had free of charge.

A series of six lessons in invalid cookery is being given by the Home Demonstration Agent to fifteen girl scouts in Medfield. This class is held in the kitchen of the Angell Home on Friday afternoons. The girls are not only learning the fundamentals in the preparation of food for invalids but they are demonstrating the possibility of producing good results when one is handicapped by limited equipment. This group of scouts has already had courses in home nursing and first aid under the direction of the district nurse. The food work supplements the previous courses and contributes to the well rounded education that every girl scout should have.

Many Norfolk County women are looking forward to the tri-county meeting which is to be held in Brockton, November 7th. Plymouth, Bristol and Norfolk Counties have combined forces in arranging an interesting program for this day and it is hoped that a large representative audience will be present from each county. Mrs. Salisbury, 'Assistant Federal Leader of Home Demonstration work and Miss Laura Comstock State Leader will both have a part on the program. Reports of work accomplished in various projects will be given by local women who have been instrumental in furthering the work in their town or county.

Make arrangements with the home demonstration agent to attend this meeting and keep in touch with the interesting things which other towns are doing.

JUNIOR EXTENSION DEPARTMENT

HOME ECONOMICS PROJECT SOON TO OPEN

Several important changes have been planned in the 1920 home economics club project. This is a club which reaches mothers and children even more closely than the canning club because of its training for future homemaking. It is a breadmaking or garment making project with credit given for household work. In this club the members learn to make bread by actually helping with and in many cases doing the family baking. They learn to make their own garments and to mend, darn and patch for themselves and others. General care of the house is emphasized in the instruction on housework which, like all the rest of club work, turns drudgery into a game.

As in all clubs boys or girls from 10 to 19 years old are eligible for membership. Strange as it may seem, many boys enjoy this club. The contest opens January 1 and closes May 1, one month longer than last year. After the regular amount of bread and sewing which this year is counted by bakings and garments instead of time, is completed, an exhibit of work is shown and judged. Household tasks are still on the time basis, 60 hours being required. A record sheet must be kept for this. A story completes the four requirements.

Again as in the canning club, a second year of work is to be offered, restricted to those who have successfully completed one year of the club work. This will make it possible for high school girls who have started club work in the grades to continue in the work since the new project calls for increased skill but not increased time. The canning club girls have been very successful with the advanced work and it is hoped many will choose it in the home economics clubs.

POULTRY CONTEST

The 1919—1920 poultry contest for juniors begins November 1st. Monthly egg record reports are required and will be published from time to time. The winners each month will be rewarded with settings of eggs, house equipment, or breeding birds. Most of these prizes will be presented by progressive Norfolk County poultrymen.

QUOTATION FROM PROF. O. H. BENSON IN THE EASTERN STATES MAGAZINE

Regarding community leadership, Prof. Benson says, "The champion demonstration team of Massachusetts last year is a notable example of this community leadership. All three champions have served as local leaders during the past summer, have trained demonstration teams and have organized club groups and are taking a live, keen, and effective leadership in the creative and constructive programs with their associates."

This was the Norfolk county team, the members of which have been doing local canning club work in Norwood, Dedham and Needham this summer.

NORWOOD GIRL WINS AT BROCKTON FAIR

The Brockton Fair does not open separate canning exhibits to Juniors. This did not phase Emily Hallowell of Norwood who is a member of the State Canning Club, however, for she entered 45 jars of different varieties. The quality was excellent and when the awards were made on collections, Emily's exhibit scored 4th place out of 9 entries. This is work to be proud of since competition was with men and women of long experience.

NOTES

To Alice Ingraham of Millis fell the honor of representing the state in the garment making project, which meant a trip to Washington. The party of nine or ten club members left October 16th for the Capitol and returned October 22nd. A story of the excursion will be found in the "Club News" next month.

The Eastern States Exposition was a revelation to some county club members. One town winner said after visiting the fair "We've only been playing at club work. I guess this year we will get down to business and do something."

Norfolk County pig club members did a good job at the Brockton Fair. Their pigs took most of the prizes; Weymouth, Stoughton and Cohasset sharing them. In the pig judging the boys took four out of five prizes. Charles Jason, Cohasset, 1st; Adrian Barnes, Weymouth, 2nd; Harry Howard, Walpole, 3d; Theodore Howard, Walpole, 5th. In the junior live stock judging first and fifth went to Norfolk County club members. Third place went to a Stoughton boy but not a club member.

"Home Handicraft" is the name of a proposed new club project for boys. Vermont has developed this work extensively with excellent results. Unless club members get instruction in the use of tools and the theory of building, they are not inclined to do very good work. If Handicraft Clubs are organized they will undoubtedly help in the making of better club equipment such as poultry coops, houses and feeders, self-feeders for hogs, storage pits for vegetables, etc., and thus make all club work better.



NORFOLK COUNTY AGRICULTURAL AND HOME MAKING BULLETIN

ANNUAL MEETING
NORFOLK COUNTY FARM BUREAU

AGRICULTURAL SCHOOL
WALPOLE, MASSACHUSETTS
1.30 P. M., FRIDAY, DECEMBER 12, 1919
YOU ARE INVITED TO ATTEND

PUBLISHED BY

THE NORFOLK COUNTY AGRICULTURAL - SCHOOL, WALPOLE, MASS.

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TIMELY TOPICS

ATTEND YOUR FARM BUREAU MEETING

The Annual Meeting of the Norfolk County Farm Bureau will be held at the Agricultural School, Walpole, at 1.30 P. M. on Friday, December 12th, 1919.

This meeting gives every person interested in the County's agriculture, home economics, and junior club work an opportunity to learn of the progress made by the Bureau during the past year and to have a voice in the program of work for the coming year.

If the Bureau has been of service to you or in carrying out the plans of your community be present and give your assistance in making a larger program for the future. If you or your community has not been benefited by the Farm Bureau in developing a program of work come and let us know what we can do.

On Friday, November 21st representatives of the various agricultural associations of Massachusetts met at the State House and considered the advisability of holding a union meeting similar to the one held in Horticultural Hall, Boston, last February which proved so successful. The sentiment of the associations represented was that another meeting should be held this winter and the date was set for the week of January 19th, 1920. In connection with the Winter Meeting the Department of Agriculture will hold a corn show, offering prizes totaling \$347 for exhibits of field and sweet corn. Premium lists are now available.

A campaign to increase the number and use of better sires has been started by the United States Department of Agriculture. Farmers who fill out blanks furnished for this purpose, agreeing to use only pure bred sires of good type are being officially enrolled in the crusade for better livestock and will receive an emblem issued jointly by the State Agricultural College and the United States Department of Agriculture. All those who have used well bred sires in their farm flocks or herds realize the gains attained by the practice. The improvements are so evident that every raiser of livestock should not be satisfied until he owns or has the use of a better sire.

Recently we were requested to secure figures in order to help in preparing data on the cost of milk production for presentation to the State Commission on the Necessaries of Life. It was a difficult task to find milk producers who had kept accounts which would give the accurate cost of making a quart of milk. The farmer expects to make a profit on what he produces and to be sure he is getting a little more than his cost of production it is necessary to keep accounts. The consumer has gradually come to the point where he realizes that producers in order to stay in business must make a fair profit, but he wants to be sure that the profit is not excessive. It is up to the farmer to equip himself with accurate cost figures, and see to it that they are made available to those working for his interest.

Field Agent, V. A. Sanders, United States Department of Agriculture, reports on November 11th, 1919, that the Maine potato crop is 22,950,000 bushels compared with 21,812,000 October 1st and 27,678,000 the 1915-1917 average. Quality is generally good except for some rot throughout the state. The average yield for the state is 225 bushels compared with 201 in 1918.

Rot, general over New Hampshire and Vermont, has seriously reduced the crop, the net average yields now indicated being 120 and 110 bushels respectively. In Massachusetts, Rhode Island and Connecticut the rot has been unusually destructive, taking roughly half the crop while in many sections the loss is even higher.

New England commercial apple crop 63% more than in 1918. A further gain of 3% during October in Maine, New Hampshire and Connecticut raised New England's crop to 1,434,000 bushels compared with 881,000 last year and 991,000 in 1917. New England's apples are very good quality and much more than usual of the crop is going into byproducts.

The successful storage of apples depends upon how quickly they are brought from the orchard to the cool cellar, whether it is kept at a low even temperature, the amount of moisture and the conveniences for ventilating. If apples are harvested and allowed to stand where they are subject to wide variations of temperature they deteriorate very rapidly are as good for over stating expenses or receipts as they are for under estimating. In either case the return is inaccurate and may mean a and soon come to a condition where they must be consumed or marketed in order to prevent their loss. It is better to get them into a cool cellar as soon as possible after harvesting and keep the temperature low and even, by allowing the cool night air to enter through open windows and doors. By closing the windows and doors during the day and keep-

ing them closed on warm nights a fairly even temperature can be maintained. Unless a cellar is moist apples do not hold up well. The supplying of moisture in dry cellars by the use of moist sand on the floor or placing pails or tubs of water in the room may overcome the dry atmosphere in some storage cellars.

Save a little money. Take a little spare time occasionally and put the unused farm machinery in condition to prevent it from rusting out during the winter. Haul it under cover, grease the iron parts and paint the wooden ones. Rust makes an implement hard to start when the time comes. If it is badly rusted something is sure to break and a vexing delay is caused just when work is in need of being rushed in the spring. While greasing and painting, do the necessary repairing, then when the time comes to take the implement out to use, your good disposition will not receive a jolt that will make the neighbors wonder what church you belong to.

To those who have decided to set out a fruit orchard next spring. It would be an excellent plan to order the trees at an early date specifying just what is wanted. Fruit trees are more expensive than in previous years and the cost of preparing the land and setting the trees will be high. In order to make the ultimate orchard profitable every detail will need close attention. Those who are making a success of fruit growing limit their plantings to a few of the well established commercial varieties and make their growing conditions so favorable that they produce the best fruit possible.

If you have decided to apply lime to certain fields it may be done in the fall after the plowing is finished as well as to wait until next spring. The benefit to the crop may be greater from the fall application as it has time to work into the top two or three inches of soil during the winter. If the land could be harrowed at least once after the lime has been distributed it would be better.

The question of owning a tractor is one which many farmers are unable to decide. During the past year several tractors have been purchased in this locality and the owners have found out a few of their advantages and drawbacks. We have no doubt that these men will be glad to give their opinions regarding their experiences to those who are considering the addition of a tractor to the farm equipment.

If squashes have been handled carefully and are not bruised they will keep longest in a dry, well ventilated room which has a temperature of 50 degrees. It is best not to pile them more than two deep and one layer is better. When necessary to pile; the erection of shelves serves as a good means of overcoming it.

A good set of farm accounts will make it an easy task to fill out the income tax reports. When making tax reports by estimates the chances loss to the owner of the business.

NOTES FROM THE POULTRYMAN

The poultry business is on the boom again. Breeders say the de-

mand for stock this fall has been unusually heavy. The poultryman or farmer who plans his work ahead so as to be able to produce his limit of hatching eggs and baby chicks will no doubt reap a good harvest the coming spring. The breeding birds should be in comfortable houses and under good care at this time of the year if it is expected that they will give the best of results next spring.

First prize at the Vineland Egg Laying Contest of the State of New Jersey was captured by a pen of Rhode Island Reds. It is interesting to note that these winners were hatched from eggs laid by pullets. The strain was built up largely by the process of selection, that is, only the heavy layers were perpetuated. Selected hatching eggs of good size, shape and color resulted in this strain of Reds laying some of the best brown eggs in the contest. Mr. Underhill, the owner of the pen, frankly admits that he bred the birds for high egg production, disregarding the present arbitrary standard of perfection.

A pen of Barred Rocks from New York State won the eighth International Egg Laying Contest conducted by the Connecticut Agricultural College at Storrs. This pen, owned by Jules F. Francais of Westhampton Beach, Long Island, laid 2,022 eggs or an average of 202 eggs per bird. There were 1,000 birds in the contest of eleven different breeds and varieties and from fifteen states and three of the Canadian provinces. They laid a grand total of 145,462 eggs or an average of 145 per bird. The best individual work was done by a White Leghorn hen which laid 260 eggs.

This is the time of the year when there is liable to be trouble from colds and roup, especially among the young pullets. If there is plenty of ventilation, which means that the curtains should be left open, there will be less trouble from this source. Some make the mistake of closing most of the muslin curtains at the season when there may be a cold spell. It is much better to leave curtains and windows open until the more severe weather when they may be regulated according to the amount of ventilation needed. It is dampness more than cold that the hen needs protection from.

There should be a supply of sharp grit, oyster shell and charcoal before the hens. This is sometimes neglected at this season of the year and if the hens are indoors they have no opportunity to hunt grit and shell forming materials as they can ranging outdoors in the summer months.

The hens, both breeders and layers, should be regularly supplied with something green. If mangels or other green foods are not available one can still sprout oats. The hens cannot do their best without a regular supply of green food.

The young pullets should not be allowed to overcrowd in the corners of the coops as they sometimes will when put in laying quarters. Overcrowding is often the source of colds at this season of the year.

Oftentimes we are in a position to locate breeding stock. At present there are available some Rhode Island Red cockerels which have been raised from high producing parents.

AGRICULTURAL DEPARTMENT

ROADSIDE PRODUCE STANDS HAVE POSSIBILITIES

During the past season the roadside stand has been more in evidence in Norfolk County than in previous years. There is an opportunity to develop this means of marketing farm produce to a much greater degree. Many of our roads are main highways for automobile travel. The motorist is one of the best customers of fresh, well graded and packed fruit and vegetables. Give him a good article, make the price a little under that of the retail dealer and he will become a steady customer, oftentimes sending or bringing his neighbors to your stand. On the other hand, if he is given poor produce and charged excessive prices his trade is not only lost to the particular stand at which he was stung but to all the rest. His experience is related to friends and their trade is also withdrawn.

The direct-to-consumer market from the farmers front door has great possibilities and the time to make a good customer is when he purchases his first bill of goods. They are the introduction to the producers and sellers standards and speak stronger than any advertising can. To continue in business, make the first articles as good as they can be and keep all succeeding ones up to that standard. A good prosperous stand must have a continuous supply of fruit and vegetables from strawberry time until the latest fall products are disposed of in order to keep the trade coming and satisfied. Offering things for sale spasmodically makes it necessary to continually look for new customers and gives little opportunity to increase the business through customers advertising from one to another.

A little good planning, attention to giving full value for the prices asked and making every customer well satisfied will increase the business as fast as it can be taken care of.

PREPARE FOR THE CENSUS TAKER

The agricultural census which is taken every ten years by the federal government will be taken this year in January (1920). At this time census enumerators will visit every farmer in the country. They will ask numerous questions regarding the farm, namely the live stock, the equipment, the crops and animals raised and sold during the past year. A little later the census takers will visit all the rest of the people in the country and ask them similar questions regarding their personal affairs and their business returns. This continues Uncle Sam's old method which he has followed since 1840, to take stock of his people and their business once every ten years.

The census of agriculture is taken in January because it is thought that the farmers will be less busy at this time and can give more attention to answering accurately and fully the questions which the enumerator asks them. The census is a vital matter. It is really the only accurate form of agricultural statistics that we have, the only method by which we can learn just how prosperous agriculture is and just how large it is. This census has nothing whatever to do with any kind of tax, either federal or state. None of the tax assessors, collectors, or tax authorities of any kind have access to the figures presented by this census,

so that any farmer should very willingly meet the census enumerator and give him fully and completely all the information he has.

A good many of the questions which will be asked will require some thought, and considerable figuring and accounting must be done by the farmer in order to answer these questions correctly. Your county agent has on hand a number of blank census schedules which he can furnish you. It would be of great advantage to every farmer to get one of these schedules from the county agent, to study it carefully and to fill in the answers to the various questions so that the census taker need only fill in these answers on his own blanks when he makes his visit in January.

The first part of the schedule concerns the farm operator. Each farmer will be asked something with regard to his history, how many years if any he worked for wages, how many years if any he was a tenant, how many years he has farmed as an owner and how many years and months he has been on his present farm.

The next set of questions will have to do with the farm acreage on the first of January, 1920—the total number of acres in the farm, including all outlying or separate fields, meadows, and pastures; the number of acres of improved land, that is, land that is tilled or mowed, land in pasture that is broken up occasionally, fallow land, land in gardens, orchards, vineyards and yards, (pastures that are going back to brush and that the owner does not intend to plow again should be classed as unimproved land); the number of acres of woodland in the farm; and all other unimproved land.

The next questions have to do with the uses of land in 1919, dealing with the crop acreages and the acreages in pasture and woodland during that year. A number of questions will be asked concerning the values of the land, of the buildings and of the tools, implements and machinery on January 1, 1920. Farmers should spend a little time in making very careful estimates of these values, which will be used only for census purposes.

Farmers should also spend a little time figuring the farm expenses for 1919. These include expenses for hay, grain, mill feed and other products not raised on the farm that he used as feed for domestic animals and for poultry. Next, the amount expended for manure and fertilizer not produced on the farm. Next the amount expended in cash for farm labor, exclusive of labor in the house, and finally, the estimated value of house or room rent and board furnished farm laborers in 1919 in addition to the cash wages which have been reported. All farmers will be asked concerning the amount of debt or encumbrance on the land January 1, 1920, and the rate of interest.

More will be said in the next issue of this bulletin regarding some of the other questions asked. Every farmer should meet the census taker with a glad hand. None except ignorant farmers shy at the census taker who is securing confidential figures and endeavoring to get accurate data for Uncle Sam.

ALEXANDER E. CANCE,

Department of Agricultural Economics
Massachusetts Agricultural College.

INDIVIDUAL CHARACTERISTICS OF GROWING POTATOES AND COMPARISONS

BY SAMUEL KNOWLES, GARDEN SUPERVISOR, CANTON, MASS.

The Agricultural Conference, of the State Board of Education, held at Amherst in the summer of 1918 revealed two facts about potatoes. First: Much mixed seed. Second: some seed not true to name. These facts suggested the growing of several varieties of potatoes for the observation of distinguishing characteristics of growth. Eight varieties were chosen. The seed of two varieties were home grown and of the other six varieties only one was mixed. On the true-to-name question, the writer requests that potato experts who may read this report, write him if any of the eight varieties of potatoes herein described appear to be "Not True to Name."

The varieties described are: Todd's Wonders, Green Mountains, Sir Walter Raleigh, Irish Cobblers, Aroostook Pride, Early Rose, Carmen No. 3, Eureka.

Conditions of ground and season, poor; unable to plant until June 2, and ground too wet then; continuous heavy rains after the middle of July kept soil very wet; checked the growth of tubers already formed and killed many which were just forming.

The rows were 115 feet long with 3½ feet spaces between. The lot sloped gradually to the northeast, and a streak of gravelly soil ran across it. The poorest potatoes grew in the gravelly soil. Maire Potato Special fertilizer was used, 100 lbs. worked in the rows and 100 lbs. cultivated in between the rows.

The seed varied in planting capacity. Table of comparative results gives amount planted and yields. Irish Cobblers and Aroostook Pride each planted 105 lineal feet, while Green Mountains, Sir Walter Raleigh and Early Rose would have planted 130 lineal feet each, if the rows had permitted. The seed of all the varieties broke ground very evenly. Distinguishing characteristics of growth were observed through the growing season. The differences were easily distinguished until growth was complete, when the leaves merged into the darker color of late summer. The stems retained their distinguishing colors as long as life was in them.

All seed was planted nine inches deep, trenches partially filled, and the balance of the earth cultivated in as the plants grew; the final cultivation rounded the rows slightly. The crop was cultivated four times.

Three sprayings were made for bugs, and one early in August for blight. Very little blight appeared.

The vines died down in the following order: Irish Cobblers died quickly after the middle of August; Eureka followed; Aroostook Pride next; Carmen No. 3, Sir Walter Raleigh and Early Rose matured together, Green Mountains died down next, and stems of Todd's Wonders were green when dug.

Length of stolons and habits of stolon growth, should determine the depth at which seed should be planted. When stolons grow downward, shallow planting will do. When stolons tend upward as in the Early Rose, deep planting should be practiced; but the compressibility of the earth has much to do with the depth at which potatoes will best grow.

When the stolons are about to sprout, the earth should be cultivated to the depths of, or deeper than, the seed, otherwise the hard ground underneath will force stolens and potatoes upward. This is the most frequent cause of potatoes protruding out of the earth. If potatoes are hilled, the rows should be two feet wide at the top, so the stolons and roots can spread out.

Dead Embryos

When digging the later varieties many small stolons from half an inch to one inch long, with embryo potatoes as big as peas, were found dead, nothing left but the brown skin of stolon and embryo. This suggests that the excessive rain of late July and early August killed these tender shoots and accounts for the poor crops, only the potatoes forming early in the season survived. Only a few plants of three varieties blossomed this year. Buds formed, but died.

TODD'S WONDER

Stems strong, purple in color from ground to tips. Growth upright, standing erect all through the season. Few branches. Leaf medium to dark green. Blossoms lavendar in color. Stems green when dug September 26th. This potato in 1918 resisted blight when intersecting rows of Green Mountains blighted and died down early in August. Tubers medium to large, white, long, yet different from and thicker in body than Green Mountains. Few small ones and all of them usable. Stolons short and located near bottom of the root stem and below the feeding roots, growing out and down. Where the earth was soft, tubers were often three inches below the bottom of the root stem. This habit of growth suggests shallow small and well distributed. Skin white and smooth. The best shaped and roots may spread over a wide area. Many embryos no bigger than peas found dead, only the brown skin of stolon and embryo remained.

GREEN MOUNTAINS.

Stems very strong, branching heavily and causing the plants to lie down and spread over a wide area of ground. Leaf large, light green in color, with stems a lighter shade of green. Blossoms white. Stolons vary in length and are distributed from near the base of the root stem to near the surface of the ground. The largest potatoes usually on the longest stolons; tubers medium to large. Shape oblong with flat sides. Eyes very small and distributed well. Skin white and smooth. The best shaped and the most attractive of all the eight varieties, but most subject to blight and rot. Deep planting recommended.

SIR WALTER RALEIGH

Upright growth. Branches moderate in number but more than Todd's Wonders. Stems first green, then they take on color, and are speckled, but are a much lighter shade of purple than Todd's. No blossoms this year. Leaf dark green, but lighter in color than either Irish Cobblers or Todd's Wonders. Stolons short and distributed up the root stem but not near the surface of the ground. Tubers well grouped because of the shortness of the stolons. Potatoes medium to large. Shorter than Green Mountains but very broad. Color white and eyes moderately deep. Seed was badly mixed and after eliminating plants not true to name, the estimate on seed planted is $4\frac{1}{2}$ pounds.

IRISH COBBLERS.

Stems strong, stand up well and are colored two-thirds of way up from ground. Branches more than Todd's and Sir Walter Raleigh, but much less than Green Mountains and spread well on top, resembling a triangle with one point on the ground. Only three plants blossomed and they were all white. Query: Does the Cobbler sometimes throw a white blossom? Leaf rather round, thick and very dark in color. Every characteristic above ground indicated Cobblers from pure seed, and the tubers were Cobblers in shape. Stolons short and potatoes grouped together close to the root stem a short distance above the seed. Easy to dig because they occupy a small space in the ground. Color white, shape roundish, eyes deep.

AROOSTOOK PRIDE.

Moderately strong stem of high growth, colored about one-third up from the ground, then green to the top. Growth resembles Green Mountains but not as heavy. Leaf rather dark in color. Seed did not cut well and more would be needed to cover an equal area than any other of the eight varieties except the Irish Cobblers. One-half peck of each of these varieties planted 105 lineal feet. Tubers long and round. Many of them irregular in shape. Color white. Size medium to small. This potato grows very deep in the ground and in many instances the stolons penetrated deeper than the set. In light soil shallow planting may be all right.

EARLY ROSE.

Stems very strong and slightly colored two-thirds up. Branching, spreading habit. Covered more ground than any other variety planted. Blossoms white. Color of leaves medium green. Stolons of varied length, growing high up on the root stem, the tubers being nearer the surface of the ground than any other variety, sometimes pushing their noses out of the earth. Long, roundish and rather irregular in snape, the nose end often tapering to a blunt round point. Color, pink with a much deeper tint on the nose end. Size, medium to large.

CARMEN NO. 3.

Strong, upright growth. Stems and leaves very dark in color, like Todd's Wonders, but stems not so strong. Branches more numerous and late in the season straggled over the ground. No blossoms this season. Stolons moderately long and even in length, grouped a short distance above the base of root stem. When root with potatoes on it is held up, they hang in a symmetrical bunch. Potatoes grew deep in the soil. Tubers russett in color. Size, medium to large. Shape longer than width and sides a little flattened. Eyes shallow.

EUREKA.

A southern potato, extra early. Stems and leaves a light green. Growth medium in height. Numerous branches forming a wide semi-circle from the ground on one side, over the top, to the ground on the other side. Appearance very even and attractive in the row. Did not blessom this season. Stolons very long and well distributed up the root stem from the very bottom to near the surface of the ground. Potatoes covered a wide area. Deep planting suggested. Size medium to small. Numbers very great. Color white. Shape roundish with a few large specimens showing greater length in proportion to width. Skin smooth. Eyes shallow.

COMPARATIVE TABLE OF RESULTS

124	47	171	14 1-4	63 3-4	22 1-4	260	46	92	398	6	Green Mountain
149 1-5	,17 3-5	166 2-3	13 13-15	93	11	417	152	6	575	7 1-2	Irish Cobbler
153 3-5	24	177 3-5	14 4-5	96	15	420	218	8	638	7 1-2	Aroostook Pride
72 4-5	40	212 4-5	17 11-15	108	25	628	359	బ	990	7 1-2	Eureka
186 2-3	5 1-3	192	16	117	ယ	589	84	∞	681	7 1-2	Early Rose
89 3-10	14 7-10	204	17	111	∞	503	104		607	7	Carmen No. 3
213 2-3	23 2-3	237 1-3	19 7-9	80	91	322	116	∞	438	4 1-2	Sir Walter Raleigh
234	0	234	19 1-2	78		268	0	2	270	4	Todd's Wonder
Salable	Unsalable	Total	in lbs.	in lbs.	& small (in lbs.)	salable	small	rotten	produced	(in lbs.)	
bushels	Estimate per acre in bushels	Estimate	Yield per lb. of seed	Wt. of salable	Wt. of	No. of	No. of	No. of	Total no. of potatoes	Seed planted	Name

HOME MAKING DEPARTMENT

TRI-COUNTY MEETING A SUCCESS

Women From Bristol, Plymouth, and Norfolk Counties Report on Work Accomplished

Eighty-five women from three counties enjoyed the Farm Bureau conference held at the Y. W. C. A. in Brockton, November 7th. The morning program was devoted to reports from local women of special work which they had been instrumental in developing in their town. Mrs. Bancroft of Randolph and Mrs. Cazneau of Dover reported on the warm school lunches which they had assisted in organizing. Problems encountered and ways of overcoming them were explained for the benefit of women who are planning to assist in starting school lunches in their communities. A very interesting report of the household account work carried on by a group of 30 women in Plymouth was given by Mrs. Briggs of that town. Much interest was shown in the account which Mrs. Cazneau gave of the Medfield health center which she, as the district nurse in that town, had started. The possibilities of such a center and the value of it to the townspeople were emphasized with the hope that other towns might adopt this splendid way of carrying on public health work in the community. The possibility of local leadership in carrying on a clothing project in a town was brought out in the reports made by Mrs. Coughlin of Abington, and Mrs. Dunn of Franklin. Both reports showed that because of the great interest in clothing efficiency work very splendid carry on work is being done by the women who were the original class members taking the clothing efficiency course under Mrs. Reed's instruction.

An informal hour was enjoyed at noon when we gathered around tables to eat a basket lunch. At this time women became acquainted with their neighbors in the nearby towns and discussed the reports of the morning and work that was of mutual interest to them.

The afternoon program was devoted to the consideration of the need for local leadership and interest in the work which Farm Bureau agents can further in the towns. Different phases of the subject were discussed by Mrs. Salisbury, Federal Home Demonstration Leader North and West, and Miss Comstock, State Home Demonstration Leader.

During the afternoon session a roll call as to counties was taken. We were pleased to find that there were present thirty-two people from Norfolk County, representing eight towns. We regret that many women who would have liked to attend the conference were unable to be present owing to the poor transportation facilities from Norfolk County towns to Brockton. The inspiration received from these conferences is of great value in promoting future work and many of the women present felt that they had received from the meeting an inspiration which will help them to carry on the work during the coming season.

RESERVE DECEMBER 12TH.

Annual Meeting of the Norfolk County Farm Bureau Will be Held on that Date

December 12th is the date that has been set aside for the Farm Bureau Meeting at the Norfolk County Agricultural School in Walpole. The three

departments of the Farm Bureau will take part in arranging for this program and it is hoped that there will be present a good representation of people interested in each of the following phases of work: The Agricultural Department, Club Department, and Home Making Department.

If you want to know how other towns are cooperating with the Farm Bureau Agents in promoting work in their communities, come and listen to the reports of work which has been done. Perhaps your own town would like to carry on similar work. We will be glad to help you. You and your friends are cordially invited to attend this meeting.

HANDLING AND CURING PORK

Timely Suggestions Taken from Essex County Bulletin

If kept cold, the meat will keep fresh for some time. Frozen, and kept frozen, it will keep until thawed. All meat that is not wanted for fresh pork should be salted or cured. To salt, cut in strips about four inches wide, pack carefully in a clean barrel or crock, placing a layer of salt in the bottom and between each layer of meat at the rate of about a half peck of salt to each hundred pounds of pork. When all the meat is in, pour in water enough to cover it. Use a weight if necessary to keep the meat under the brine.

The hams, shoulders, and some bacon, may be cured as follows: for 100 pounds of meat use 8 pounds of rock salt, 3 pounds of brown sugar, 2 ounces saltpeter, 2 ounces soda, and 4 ounces of red pepper. Rub on dry as much of this mixture as will stick to the meat, pack in a barrel and allow to stand one week. Make a brine of the same mixture by boiling in 4 gallons of water. Strain and cool. Remove the meat from the barrel, brush off any of the dry mixture remaining, repack, and cover with the cooled brine. Leave in the brine for a week, remove the smoke over a slow fire of hickory wood or corncobs.

For sausage, take the meat in the proportion of 1 pound of fat to 3 pounds of lean, and run through the meat grinder. Prepare a seasoning of 1 ounce of salt, one-half ounce of black pepper, and one half ounce of sage, for each four pounds of meat; mix with the ground meat and run through the grinder again. This sausage meat may be put in cloth bags and paraffined, or put in a crock and covered with melted paraffin.

WHAT SHALL I COOK TOMORROW?

This Perplexing Question is Answered For You

TOMATO SPLIT PEA SOUP

½ c. split peas
½ inch slice of pork or ham bone
6 whole cloves stuck in an onion
½ bay leaf
2 t. dried celery tops
spray of dried parsley

1 ¾ t. salt

pepper 8 cups of hot water or stock to start, when thickening, add more as needed, 1 pint jar tomato soup or 1 can tomato

soup ½ t. soda

Cook four or five hours and strain. Add one cup white sauce. This will make about 9 cups soup.

MRS. O. A BLAISDELL, Wollaston.

MAPLE SPONGE CAKE

2 eggs

3/4 c. hot maple syrup

1 c. flour

2 t. baking powder

½ t. salt

1 T. lemon juice

Beat yolks of eggs until light. Pour hot syrup on yolks and leat until Add flour, baking powder and salt sifted together. Fold in the stifly beaten whites of the eggs.

MRS. F. B. BROOKS, Holbrook.

SHET PUDDING

1 c. molasses

1 c. sweet milk

½ c. chopped suet or

3 T. fat

3 heaping cups flour

1 t. soda, salt, nutmeg and

cinnamon

½ c. chopped raisins, dates,

figs or currants Steam 3 hours

MRS. WALDO PRATT, Walpole.

SOFT GINGERBREAD

1/4 c. sugar

½ c. molasses

1/4 c. butter substitute and lard

½ c. boiling water

mixed

11/4 c. flour 1 t. soda

1 egg 1 t. ginger

½ t. salt

Mix all ingredients except flour, water and soda. Dissolve soda in water and add one half to the mixture. Add the flour and beat thoroughly, then add the remainder of the water.

MRS. MILLARD RINES, Plainville.

CHOCOLATE SAUCE

1 c. white Karo

3 t. cornstarch

2 squares melted chocolate

1/4 t. vanilla

½ c. boiling water

speck salt

Melt chocolate, add boiling water, stir well and add Karo. When boiling add cornstarch moistened with a little cold water. Boil ten minutes, remove from stove and add vanilla.

NOTE. Good on Boiled Rice, Blanc Mange or Cottage Pudding.

MRS. E. E. COPELAND, South Bellingham.

OLD FASHIONED RYE PANCAKE

To 1 well beaten egg add 2 T. sugar, 2 T. molasses, ½ t. soda dissolved in 1/2 c. sour milk, and equal parts of flour and rye meal to make a stiff batter. Drop from small spoon into deep fat as in frying doughnuts. MRS. SYLVESTER SMITH, Plainville.

ITEMS OF INTEREST

The Home Making Department Wishes You A Very Merry Christmas!

Walpole is to have a health center similar to the Medfield Center which was fully described in the October number of this bulletin. A room in the central part of the town has been secured and the Civics Department of the Woman's Club has taken the responsibility of fitting up the room and carrying on educational work in the center. Everyone connected with the home should be interested in first aid and home nursing information, as well as the care of babies and the preparation of artificial infant foods. A center of this kind is so equipped that it can give this information and should be of very great value to high school girls, parents and homemakers in the community.

Every school child should be taught at an early age the necessity for the care of the teeth. In the towns where there are school or district nurses, mouth hygiene is usually emphasized in the schools. We are asking you to go one step further and purchase a supply of seconds in tooth brushes that may be sold to the children for from five to seven cents apiece. Putting the tooth brushes in the hands of the children is more effective than recommending to the children that they have their mothers purchase a brush for them. Many homes with five and six children cannot afford to pay thirty-five cents for a tooth brush for each child. The majority of children can afford to bring five cents to school for a tooth brush and the many gross of brushes sold by the school nurses have proved this to be a feasible plan.

The Home Demonstration Agent has samples of seconds in tooth brushes and will be glad to show them to you and explain the poscibility of purchasing a supply.

Plans are under way for starting warm lunches in the Foxboro and Sharon Schools. The Parent Teachers Association in Foxboro is cooperating with the Women's Committee that organized the lunches last year, and are trying to overcome the difficulties which tend to make the school lunch a difficult proposition. The Civics Committee of the Woman's Club has become interested in the warm lunch for the grammar school children in Sharon and is making every effort to organize the lunch to start in the near future. The Home Demonstration Agent has had a conference with this committee to assist them in the organization of the lunch.

What organization is making itself responsible for the warm school lunch in your town? The Home Demonstration Agent would appreciate an opportunity to meet with them.

Classes in Clothing Efficiency are being taught in the following towns: Plainville, Foxboro, Franklin, Bellingham, South Bellingham, Walpole, Medfield and Randolph. Much interest is being shown in the work and the women are beginning to realize that efficiency in saving time, energy and material in clothing construction is as valuable to the housewife as efficiency methods applied in the business world.

The Efficiency Class in Randolph has already organized a class of eight women which they are teaching in the evening following a lesson which the Home Demonstration Agent gives them in the afternoon. The original class however keeps two weeks in advance of the second class.

Clothing Efficiency Work is started in each class with the idea that the work will grow and continue to grow reaching out to all women who desire it. It is important that in our enthusiasm to pass the good work along, that we do not make it more and more superficial. First make yourself proficient in the work and then pass it along in a thoroughgoing way.

The Franklin Efficiency Club has started off the winter program of

carry on work with a class of 15 new members in Clothing Efficiency. The class meets Thursday evening in the Red Cross rooms to receive instruction from members of the Clothing Efficiency Club. The original ten members have already taught the clothing efficiency course to 18 women in the town and with 15 more women completely taught the Clothing Efficiency Group in Franklin will number 43.

Get in touch with the Home Demonstration Agent if you are interested in having a course in millinery in your town. We are prepared to offer a limited number of these courses after the first of January and we can say to each town, "First come, first served."

Forty women attended the first meeting of the Household Management course which Miss Gifford is giving in Norwood. The fact that we had this good sized audience on a very stormy afternoon showed that women are becoming interested in the business of housekeeping. Twenty-two household account books were purchased by women who decided that keeping a record of household expenses was the logical way of checking up the leaks and serving as a guide for a wiser expenditure of their money.

On December 3rd a meat cutting demonstration by a local butcher will be given in Conger Hall at 3:00 o'clock. At this demonstration a beef creature will be cut up and the location and relative value of different cuts of meat will be explained.

Much interest is being shown by the Walpole women in the program arranged by the Home Making Department of the Woman's Club. At the last meeting when the subject of kitchen arrangements were corsidered 30 women were present. Two homes in the town, where thought has been given in arranging the kitchen equipment to save time and steps were visited by the department members and many of the women signified their intention of adopting some of the good suggestions which they had seen, and rearrange their kitchen along these lines.

Have you received the 20 thrift leaflets which the U. S. Treasury Department has published to assist women in making the money go around? The pamphlets are concise and contain valuable suggestions on buying, selection of foods, care and repair of clothing, household accounts, and other subjects pertaining to household management. Ask the Home Demonstration Agent to send you a set.

COUNTY CANNING CHAMPION FOR 1920 CHOSEN

The county winner in canning this year is Marion Curley, first. Elinor Menchin, Weymouth, is second. Miss Norris, Asst. State Club Leader spent a day in the county deciding on the champion. She chose Marion and Elinor because of their high quality of canning, for home use as well as exhibition, the amount canned, and the qualities of leadership and cooperation shown by the girls. The first prize is a week at the summer camp at Amherst, the second, a book.

The following club members ranked high in the county ir doing creditable work although they did not receive a county prize:

Evelyn Martell, Cohasset Katherine Ehnes, Medfield
Esther Chisholm, Dedham Mary Griffin, Medfield
Our three last year's 5 canners, Emily Hallowell, Norwood; Dorothy Healey,

Needham and Helen Findlen, Dedham, have again done excellent work.

JUNIOR EXTENSION DEPARTMENT

CLUB WORK TO FEATURE AT BOSTON POULTRY SHOW

State Club Members Will Have a Department of Their Own With Prizes On Birds, Eggs, Equipment, Feeds and Team Contests

The Boston Poultry Show is making a special feature of Poultry Club work this year at its Annual Show, December 30th—January 3rd.

Classes for club members have been made in all the common breeds and in many of the less familiar kinds. Home made poultry equipment is also eligible for entry in several classes. Strong competition is expected in classes calling for the best dozen white, brown and mixed eggs. The best club display of eggs will be of special interest to organized groups.

People who missed the demonstration by club members at the Eastern States Exposition will have a chance to see some here as several counties will enter teams in competition.

Collections of feeds, feathers, brown eggs and pictures will add interest to the Club Department.

Mr. A. Lawrence Dean, former State Poultry Club Agent, is in charge of the Department and expects a fine showing from club members.

HANDICRAFT PROJECT FOR MASSACHUSETTS

New Club to Encourage the use of Tools in the Manufacture of Home Articles is Open to Norfolk County Boys

The "Massachusetts State Handicraft Club" is the latest addition to the list of Junior Extension Projects. Demand from many groups all over the state made this project necessary so the following recuirements have been adopted and work started. Work is to be carried on in groups, covering at least four months between November 1st and May 1st. The work will include toys, home repairing, manufacture of articles of furniture or farm equipment and many miscellaneous operations where skill in the use of tools is necessary. At the end of the contest each member must exhibit one toy, one repair job, and one article of carpentry work. Final judging will be on quality of exhibit, amount of work done, practicability of articles made, record and story.

Blue prints will be furnished by the Junior Extension Service where the demand warrants it. Groups in handicraft may be formed this year any time during December. Outlines and complete instructions may be obtained from the County Club Leader.

MOTHER AND DAUGHTER IDEA GROWING

Women's Clubs In County Hear About Club Work and are Interested

"What is a home economics club?" "Of what value is it to me and my town?" "How may my daughter join?" These are only examples of the many questions asked of the county club leaders as they travel about the county.

It is the constant desire of workers in the boys' and girls' clubs to enlist the interest and support of the parents whether as active leaders

in the clubs or as encouraging partners to the young people. With this in view the assistant county club leader has given several talks before women's and mothers' clubs where requested and has already been asked for others in different communities. In each case the work has met a most enthusiastic response from the parents. "Why! I had no idea that such a club existed!" "Why hasn't my daughter joined and learned to do her own mending?" "If every child will enjoy housework by joining such a club, do form one here." These are a few of the many remarks heard. It seems as if the specific work done in the boys' and girls' clubs was as yet unknown to the majority.

Whenever such a talk is given, it is hoped some definite action may result. This usually takes the form of an advisory committee to cooperate with the local leader, particularly if she is a teacher. This committee will meet with her at least once during the contest and will plan to visit at least one club meeting. In this way club work becomes a permanent mother and teacher, mother and daughter, part of the community. If other towns wish any work of this kind, the Junior Fxtension Department at Walpole will be glad to assist.

DOMESTIC SCIENCE TEACHERS SHOW INTEREST IN CLUB WORK

Fifteen towns in Norfolk County employ teachers in either cookery, sewing or both in grades or high schools. These teachers were invited to a meeting held in Boston, Saturday, November 8th, to find out how the Junior Extension Department of the County Farm Bureau could serve them and to discuss mutual problems in the teaching field. The meeting was an open one and the women members of the school boards from the different towns were invited although the program was intended mainly for teachers. All but four towns were represented by one or more of their teachers and the interest in the work was very encouraging. Several of those present expressed a desire for more such get together meetings for county workers since there is no county organization for home economics teachers.

A feature of the program was the demonstration in breadmaking by the county team. It took the form of a little play and was enjoyed by the actors as well as the audience.

Mrs, L. W. Smith of Franklin spoke briefly on the method of carrying on a successful Home Economics club with the domestic science teacher and housekeeper cooperating. This relieves the busy teacher of the actual club responsibility and also gives the housewife the technical help from the teacher which is of such assistance to her.

It is believed that the meeting will result in several clubs working out in this manner in the larger towns.

The following is the complete program presented:

10.00 What is Junior Extension Work and How is it Related to the Community?

Eunice H. Homer, Ass't. County Club Leader.

10.15 The State Home Economics Club for 1920. Helen M. Norris, Ass't. State Club Leader.

10.30 How We Make Bread. A One-act Playlet Weymouth Club Members—Alice Peers, Hazel Our, Dorothy Rowell. 11.00 A Housekeeper Plus a Domestic Science Teacher Equals a Successful Club.

Mrs. L. W. Smith, Franklin.

11.15 What Others in Our County are Doing.

Discussion.

COUNTY CANNING CLUBS FINISH WELL

Report Shows Many 100% Clubs

It is always more difficult to bring through a successful canning club than a bread or garment making since the meetings come in the summer when the club members are scattered. That it can be done, however, has been proven by leaders of twelve out of twenty-six clubs in the county. Although the enrollment was smaller than last year, it has been more than justified by the higher percentage finishing and in the number of 100% towns.

Housekeepers may be interested to know that 1535 jars of jelly were put up by the young canners. Second year members also reported 395 quarts of meat, soup or fish canned. The exhibits included canned lobster, oysters, mackerel, clams, salmon, rabbit, chicken, beef, pigeon and yeal.

The following is the statistical report:

Towns represented 15 No. enrolled 234 No. completing 154

No. jars canned $12,287\frac{1}{2}$ jars or 9,988 quarts

Value \$4,564.64

SEVENTEEN TOWNS ORGANIZE FOR HOME ECONOMICS CLUBS THIRTY CLUBS ALREADY ENROLLED

At least thirty home economics clubs will be formed this year throughout the county. Seventeen towns are already enrolled with a probable membership of about 400. It is impossible to organize many more than thirty clubs and do efficient follow-up work on them. Suggestive outlines for eight meetings during the four months of the contest are furnished from the county office. A monthly visit is planned to each club as far as possible and primers and literature is sent to each member.

The clubs will vary in size from six to fifteen members. They promise much enthusiasm and active work in bread or garment making for the coming season.

Although the contest does not open until January 1st each club seems anxious to be the first to organize and elect officers so that by January 1st, the wheels will be smoothly running.

The following towns are interested in the work:

Bellingham Medway Braintree Needham Canton Norfolk Dedham Plainville Foxboro Quincy Franklin Randolph Holbrook Walpole Medfield Westwood

Weymouth

NORFOLK COUNTY AGRICULTURAL AND HOME MAKING BULLETIN

NORFOLK COUNTY FARM BUREAU AGENTS' REPORTS

DECEMBER 1, 1918, TO DECEMBER 1, 1919

PUBLISHED BY

THE

NORFOLK COUNTY AGRICULTURAL SCHOOL WALPOLE, MASSACHUSETTS.

VOL III

JANUARY, 1920

No. 25



NORFOLK COUNTY AGRICULTURAL AND HOME MAKING BULLETIN

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VOL. III

JANUARY, 1920

No. 25

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TIMELY TOPICS

COUNTY AGENT W. A. MUNSON APPOINTED DIRECTOR OF MARKETS

Governor Coolidge has appointed County Agent Willard A. Munson as Director of Markets, State Department of Agriculture. Mr. Munson became County Agricultural Agent of the Norfolk County Farm Bureau on March 20th, 1915 holding the position until March 1st, 1916 when he was appointed County Agricultural Agent of the Farm Bureau Department of the Norfolk County Agricultural School. Mr. Munson has been a conscientious, untireing worker, building up a department second to none in the state. From the first he has had the respect, esteem and cooperation of the farmers of the County and they will keenly miss his friendly calls and assistance. While we most heartly congratulate him on his appointment to a higher field of usefulness we shall most sincerely miss his genial presence and hearty assistance in solving the problems not only of his Department but of the School as well.

Although the day was stormy, the roads slippery, and railroad transportation curtailed, the attendance at the Annual Farm Bureau Meeting numbered eighty five. After listening to the reports of the Agents, those present heard a very comprehensive address by President K. L. Butterfield of the Massachusetts Agricultural College on "The Future of Massachusetts Agriculture." President Butterfield declared very strongly that the agriculture of the state should be governed more by what the markets

require and what part of that could be produced profitably on our soils. He said that markets should be more carefully considered when our planting plans are being made and that farmers should not be governed entirely by the crops they like to grow.

The afternoon was concluded by sectional conferences for those interested in the several lines of work being done by the Farm Bureau. The expressions obtained at these conferences are very helpful in determining what the various sections of the County will ask of the Farm Bureau for the coming year. The program of work for each department will be made up according to the desires of the people being served.

We announce the appointment of Mr. Nathaniel E. Robinson of Mount Vernon, Maine, to the position of Educational Manager. Mr. Robinson was born and brought up on a Maine farm, graduating from Colby College in the Class of 1915 with the degree of Bachelor of Science. After graduation he was a successful high school principal until the United States entered the war, resigning to take up war work in France where he was in charge of teacher training until March, 1919. In connection with his duties as Educational Manager he will teach the classes in English.

School closed December 24th for the Christmas holidays and midwinter vacation and will reopen January 5th, 1920. The regular attendance for the past term has been very gratifying.

UNION MEETING

of the

Agricultural Organizations of Massachusetts at Horticultural Hall, Boston, January 20, 21, 22, 23, 1920

The big Agricultural Meeting of fruit growers, vegetable growers, dairymen, beekeepers, poultrymen, nursery men, gardeners, florists and produces representing every branch of Agriculture. Agricultural moving pictures, retrifims every day, labte no 1'd lectures, discussions and association meetings. Agricultural banquet, Thursday evening, January 22. Speakers of national reputation upon the following topics: Fruit growing, sheep and swine breeding, dairying, beekeeping, vegetable growing, general farming, poultry raising, and the growing and care of nursery stock and florists stock, together with many other agricultural activities. Free lectures and exhibits. Come and bring your neighbor with you.

FROM THE POLTRYMAN

The 1919 American Egg Laying Contest conducted at Kansas City, Misrouri came to a close on October 31st. Two pullets in this contest produced over 300 eggs each and over 30% of the birds passed the 200 egg mark. One pen of five pullets laid 1,319 eggs and another pen 1,301 eggs which is an average of over 250 eggs per bird in each pen. The leading bird was an S. C. White Leghorn which produced 306 eggs.

There has been some trouble in certain sections of the country with chicken pox. This is a very contagious disease and may be told by the yellow patches or nodules that appear about the beak, face and comb. A good treatment consists in covering the sore patches with carbolated vaseline, or if this is not effective, a touch of icdine on the sore may help.

We recently made a trip to Mr. R. S. Whittier's farm in Foxboro and found his hen houses equipped with "lights". He claims the hens are showing the effect of the use of artificial illumination by an increased egg production. Interested parties would no doubt benefit by a trip to Mr. Whit ier's plant,

Some trouble from roup has also been reported. This is a highly contagicus disease which is quite common in the fall, especially in poorly ventilated, damp houses. The treatment is to remove sick birds to a warm, dry, well ventilated room that is free from drafts. The nostrils of the bird are then syringed by means of a medicine gropper, with a solution of one teaspoonful of common salt to a quart of water and the eyes are bathed with the same solution. Carbolated vaseline is then applied around the nostrils and eyes. Potassium permanganate is put in the drinking water and this is also used for the rest of the flock. It is dissolved at the rate of one gallon of water to all the potassium permanganate that will remain on a dime. It is a good practice to use this in the drinking water for the flock as soon as cool weather begins in the fall.

BEE NOTES

At a recent meeting of the Beekeepers' Association in Boston, Mr Fuller, the speaker for the afternoon, gave a talk on the use of soft candy for feeding bees. He told how hard candy as formerly made for feeding was not a success due to the fact that the bees could not utilize it to good advantage.

The formula for soft candy is as follows:

12 pounds granulated sugar

1½ pounds liquid glucose

1¼ quarts water

½ teaspoonful cream of tartar.

The cream of tartar is added to the other ingredients when the temperature of the mixture reaches 230 degrees Fahrenheit. The mixture is then allowed to boil until it reaches the temperature of 240 degrees Fahrenheit when it is taken off the stove to cool. As soon as the sugar has begun to dissolve, prior to boiling, the sirup is not stirred, but when the mixture is cooling it should be stirred until it begins to grain. The candy is then ready to pour into molds and cooled unless it is desired to make the candy finer grain and more consistent, in which case it is worked on a marble slab or something until it is a lighter color.

Among other things of interest Mr. Fuller told how a colony of bees swarmed and built their comb out in the open without any protection. This colony not only survived the winter but stored some honey the following season. This was a surprise, especially to those of us who are very particular as to the winter packing of our colonies.

Norfolk County Agricultural School Farm Bureau

ANNUAL REPORT OF AGRICULTURAL DEPARTMENT

December, 1919

ORGANIZATION

Early in the year a community organization project was outlined so that those being served by the Faim Bureau could have an opportunity to make known the things which they believe were most necessary to be accomplished in their communities. This project also mapped out a plan whereby the community leaders in the several types of work initiated could come together and direct the county program of work adopted at the annual Farm Bureau meeting.

The only part of this project carried out has been that farmers in many communities have taken the leadership in demonstrating the practices which are outlined in projects regarding the branch of agriculture in which they are engaged and arranging for meetings to bring the results of their demonstrations before others interested in the same type of farming.

In some cases several interested in the same project have arranged for the meetings and given publicity to the results of the demonstrations.

POULTRY

Two poultrymen in the County agreed last spring to conduct their plants as economic management demonstrations. These owners have consulted frequently with the Poultry Specialist of the College.

Three parties have been conducted during the season to the demonstrations and the operators have been very accommodating in giving every exportunity at their command for the visitors to secure any helpful information which would be applicable on their home plants.

The principal features emphasized by the demonstrators are methods of incubation, brooding, range rearing, good types of colony houses, laying house management and construction.

Those who visited these demonstrations in several cases adopted the colony house plans of one and the efficient house arrangement of the other.

An interesting feature of one demonstration is the breeding methods practiced. These convinced those who were present that the breeding of cockerels from good producing stock was to be considered seriously if the average production of their flocks is to be increased.

CULLING DEMONSTRATIONS. The demonstrations of this year with those of the preceding year have pretty thoroughly covered the County. They have been distributed so that every section of the County has been covered and every poultryman has had an opportunity to attend. The total attendance of this year was 237, representing an ownership of 10,000 head of poultry.

One of the pleasing features of the demonstrations was the opportunity offered by the owners to the visitors to inspect their entire plants. This inspection was conducted by the owners and any questions which the visitors saw fit to ask were gladly answered. In many cases the poultrymen gave very instructive talks on their practices which had been found to prove successful.

The demonstrations were given by a specialist from the Poultry Department of the Massachusetts Agricultural College. After he had finished pointing out the characteristics of the good and poor layers, the poultrymen attending the demonstration were given an opportunity to put the points into practice, using the birds at hand.

Those poultrymen who have cooperated with the Farm Bureau during the past two years in arranging and advertising the poultry culling demonstrations and the economic management demonstrations are being recognized as very efficient in their line of work. They are being called upon for information which is proving to be very helpful to the poultry population of the communities.

The cooperation given by the Poultry Specialists of the College has been very helpful and their leadership of the poultry projects has taken the responsibility for which they are best equipped.

ORCHARDS

The orchards of Norfolk County which have been demonstrating the best management practices have been increased in several cases by new plantings. The owners of many of the best orchards are now seeing them produce larger crops each succeeding year.

Several parties have been conducted to these orchards and individuals who have inquired for orchard information have been referred to the progressive owners who have taken great pains in giving any information requested and telling how they secured the results which are so well demonstrated. These orchard owners are being regarded in the neighborhoods and communities as very efficient operators. They are looked to for information on the several problems connected with good management.

In some of the plantings the trees are proving untrue to name. These are being top worked to reliable varieties.

The practices being demonstrated by our best orchardists are pruning, spraying ,fertilization, cultivation, cover cropping, inter-cropping, thinning, borer control, winter injury from mice control, etc.

There is a very good opportunity in Norfolk County for the planting of fruit orchards and small fruits as the consumers so handy to our farms are supplied to a large extent by importation of fruit from long distances.

SOILS AND CROPS

The fertilizer situation of the past year has caused farmers to figure closely and reduce the allowance which they have been in the habit of using. Those who are fortunate enough to have large amounts of stable manure have curtailed the most in the use of commercial fertilizers and have adopted the practice of reinforcing this manure with acid phosphate. This has been true, especially where the grower has put in large acreages of corn and had considerable grass to feed. Those who have practiced this plan are reporting good results and their neighbors are now planning to adopt the same method next spring.

LIME. The use of lime has been continued for the growing of clover and other legumes on most of the farms in the county where livestock is kept. It is also being used to improve the mechanical condition of the soil

by other farmers in market gardening and fruit growing. Lime is considered a necessity and its value has become so generally acknowledged that it needs no demonstrating.

PEAS AND OATS. The growing of peas and oats for green feed is rapidly increasing. The greatest objection to this crop now is that the high price of pea seed has almost prohibited its use. The value of peas and oats is realized thoroughly and with seed at a reasonable price the crop will be grown by a majority of the dairymen.

SOY BEANS. These are being grown by a few dairymen with ensilage corn and also in separate fields. Those who grow them report that the feeding value of the ensilage is greatly increased and that less grain is necessary when it is fed. The method of growing them for the silo is divided about equally. Some like to plant them in a separate field, planning to mix one load of the beans with three of corn. Others plant in the corn, so that both crops can be harvested and put into the silo together.

POTATOES. At the beginning of the past season potato variety demonstrations were arranged and these have been carried through. The late blight caused so many of the potatoes to decay that it was almost impossible to get figures that were accurate enough to give the relative value of the different varieties. Observations made during the season of the vines of the Northern grown and home grown seed showed that the former was the more vigorous and gave every indication of producing the larger crops.

CROP ROTATIONS. Two farmers in the County have been working on a crop rotation system, one for the past three years. These men have found that the amount of ground which it was necessary to plant to corn in order to fill their silos was becoming larger each year, thereby reducing the amount of land used for growing hay. The reduction in the grass land was making it necessary to buy large quantities of hay and their dairies were running behind. One of the farms is now producing enough hay to feed all of its livestock and enough ensilage to give one good feed per day. The other demonstration was started during the past season and results are not so evident as yet.

SEED CORN. Each spring a campaign has been carried on by the use of news items and circular letters to encourage the testing of seed corn. Many of those growing corn in the County are using this precaution and are realizing that it pays to test the seed before planting. In the fall a publicity campaign is carried on to encourage the better storing of seed corn. Just what influence this has had is hard to determine.

FARM ACCOUNT BOOKS

There has been a little more interest this year in the keeping of farm accounts, twelve having applied for account books and a number have installed a system which is better adapted to their business.

DAIRYING

Although the dairy business in Norfolk County is being more and more reduced to a retail basis, the realization of the value of good stock is becoming more and more evident. Three better sires have been introduced

into grade herds of the County, These are available for use by nearby dairymen and are being taken advantage of by them. A better grade of heifer calves is being raised and the farmers are trying to locate these from herds headed by pure bred sires when they wish one to raise.

Twelve farmers have joined the Better Sire Crusade recently started by the United States Department of Agriculture. There are many in the County eligible to join and receive the emblem offered by the Massachusetts Agricultural College and the United States Department of Agriculture. There are many others who should join and enter the ranks of progressive farmers by breeding up their livestock by the use of better sires. Whatever the kind of livestock kept, there is always an opportunity to increase the profits by breeding in characteristics which will improve the stock by their addition.

Labor on dairy farms has been a serious problem; its high price and the scarcity of good help has caused the installation of milking machines in several instances. Those who have put in machines are pleased to give their experience to those who contemplate the advisability of equipping with them.

HOME GARDENS. Although the enthusiasm which was apparent during the war has subsided in regard to the home garden, there has been about the same amount of land used in growing vegetables by people other than farmers. The care and management has been considerably better the past season due to the lessons and experiences gained in war gardening. Many who have found that they were not adapted to garden work have given it up. This has not reduced the total returns as those who have made a success have increased production by enlarging the areas cultivated and through better care. The town of Canton continues to maintain a garden supervisor and the service which he has rendered the gardeners of that town has proved so valuable that the committee in charge of the work has seen fit to engage him for next season.

GRANGE AND COMMUNITY FAIRS. At harvest time the local fairs and exhibits have given both home and commercial gardeners an opportunity to display their best products. These fairs continue to have a live interest for the consumer as well as the producer.

MISCELLANEOUS

UNION AGRICULTURAL MEETING. Last February fourteen agricultural associations of the state held a union meeting in Horticultural Hall, Boston. All the cooperation possible was given these associations and every farmer in the county was urged to be present at the session which would be of value to him in his particular branch of agriculture. Besides giving assistance to those in charge of the union meeting, cooperation was extended to the Massachusetts Fruit Growers' Association in arranging their exhibit and program.

FARM LOAN ASSOCIATION. The Norfolk Farm Loan Association has required some time in carrying on its work, many applications have been received and appraisals have been made by the local board of appraisers. In most cases the amounts applied for have been much in excess of those which could be recommended by the committee. Loans to the extent of 50% of the values placed on the land and 20% of the building values can be obtained. When appraising land, its agricultural value is considered only.

NITRATE OF SODA. As in the previous year nitrate was sold by the government; the orders in Norfolk County were placed through the Farn Bureau. There were no instances of lost shipments reported and although some of it came a little late it was in time so that it could be used to advantage.

HEARINGS AND CONFERENCES ATTENDED. When there has been an opportunity of offering evidence that would be useful to state committees investigating for the purpose of bettering agricultural conditions, they have been attended. Some of them were in relation to continuing the use of state owned farm machinery, revision of apple grading laws and price regulation of milk. Several times during the year the trustees of the Norfolk County Agricultural School have requested a conference. In every instance it has been a very agreeable duty to meet with these officers and be of whatever assistance possible. The same has been true whenever the director and instructors of the school have seen fit to request conferences to discuss problems relating to school and farm problems. On many occasions the school staff have been of great service in giving information that has proved to be very valuable.

GRANGE MEETINGS. On occasions the granges of the county have extended invitations to be present at their meetings and speak on some agricultural question of interest to the farmers of their membership. These invitations have all been accepted and the subjects discussed with the intention of giving information that would be beneficial.

COUNTY PUBLICATION. The Norfolk County Agricultural Bulletin is published monthly by the Agricultural School. Contributions have been regularly supplied and assistance given in editing the bulletin.

EXTENSION SCHOOLS. At the time when the Extension Service of the College was handicapped by members of its staff being in the army, assistance was given the Pomological Department by taking the fruit subjects at extension schools in Barnstable and Worcester counties.

STATISTICAL REPORT

Farm visits made	436
Calls on agent at his office	35
Meetings at which agent took part	84
Total attendance at such meetings	5,024
Articles written for agricultural bulletin	85
Letters written	650
Agricultural observation parties conducted	7

Norfolk County Agricultural School Farm Bureau

ANNUAL REPORT OF HOME MAKING DEPARTMENT

December, 1919

The following report of the Home Making Department of the Norfolk County Farm Bureau includes work done between December 1st, 1918, and December 1st, 1919. These activities are reported in project form.

ORGANIZATION

During the war the Home Making Department of the Farm Bureau lent its influence largely in supporting and promoting activities to relieve conditions brought about by the war. An effort has been made this past year to adopt a broader program of work for this department and to develop a more permanent organization which shall promote the interests of the people and react in each community. With this in view town directors and local project leaders have been selected to represent each town and activity, and occasional farm bureau conferences arranged for the information and inspiration of the people in the work.

County P. oject Leaders

Having the local project leaders to further the project selected by the towns it seemed advisable to coordinate the work which the various towns were doing. The members of the home economics council, or working board, were appointed with the aim that each member according to her interest and adaptation, head up as county project leader one of the projects selected for the county program of work. Progress in this plan has been slow, owing to the fact that women best adapted for the work are busy people and can volunteer but a limited amount of time to this work. Feeling that this is a step in the right direction, however, the work this coming year will be developed along these lines as far as possible. Bir onthly meetings of the Council with the state and county home demonstration agents have been held to review work done and to plan future work.

Sectional Conferences.

In order to make it possible for women from all par's of the county to be present at a Farm Bureau conference, it seemed advisable to hold two county conferences, one in the eastern end of the county and one in the western end. Two all day, outdoor conferences were held in the early summer for the purpose of showing the women what was being done throughout the county in the various projects in order that they might see the possibilities of Farm Bureau work along these lines in their town and arouse interest in it. The conference was informal, county women as well as county and state leaders taking part in the program. One hundred and twenty-three women were present at the two conferences, twenty-one out of twenty-eight towns in the county being represented. From the interest aroused in the work at these meetings a sufficient number of requests were made for work to very nearly complete the fall and winter schedule.

Tri-County Conferences with Federal Agent

Two tri-county meetings have been held for Farm Bureau council members and interested county women with Mrs. Salisbury present from the Federal Department. Through these meetings a clearer idea has been obtained of the Farm Bureau organization, its relationship with the state and federal departments and the possibility of giving to the people the advantages of these cooperating agencies. Reports from local leaders of projects which they have been instrumental in furthering were given as a demonstration of effective work which was of value and interest to women. Eighty-five women from Bristol, Plymouth and Norfolk Counties attended the last conference, a delegation of thirty-two women representing eight towns in Norfolk County being present.

City Leader Appointed

Quincy, the only city in Norfolk County, was organized for home demonstration work February 20th and Miss Edith Badger appointed as Through the efforts of women interested in home demonstration work, the city council made an appropriation of money to supplement the federal funds available for this purpose, thus assuring the work until With the cessation of federal funds July 1st, the county trustees voted the sum of two hundred and fifty dollars to assist the city in continuing the work until January, 1920. This cooperation made possible a stronger and better organized piece of home demonstration work since all extension work in the county was centralized in the Farm Bureau organization. The county home demonstration agent has been conversant with work done by the city agent and vice versa through occasional conferences and the exchange of monthly reports. Home demonstration work in Quincy has developed rapidly during the past six months. Women are interested in the work and appreciate the value of it to the city. Every effort will be made to establish a cooperation for continuing the work after January 1st.

Extension School

In cooperation with the Massachusetts Agricultural College a two-day extension school was held last January in Holbrook. The success of the school held the previous year made it possible for the committee to secure an appropriation from the town to defray the expenses of the school, thus making it free to the townspeople. The program of the school was given by a member of the extension staff, representative of the state board of health and the county home demonstration agent and included eight talks and demonstrations on the subjects of food, clothing, household manage-As a result of the interest aroused by the school, three ment and health. cormittees were appointed: (1) to investigate the local sentiment regarding a public health nurse; (2) to determine the interest, if any, in organizing a clothing class; (3) to investigate conditions in the schools to see if a warm school lunch was needed. There was an average attendance of thirty-eight women at all sessions, sixty-five different people attending the school.

Harvest Fairs

Introducing educational exhibits at the fall fairs was a feature stressed by the home making department of the Farm Bureau this year.

Five exhibits, including easily made home conveniences, kitcher plans illustrating the kitchen equipment arranged to save steps, a simple household account book, a clothing exhibit made by the clothing efficiency club members, and garments made from flour sacks were arranged by the home making department and loaned to town committees for fairs. Six harvest festivals were attended by the home demonstration agent, the Farm Bureau exhibit displayed and demonstrated, and the exhibited work judged.

Home Making Course for County School

At the request of the Trustees of the Norfolk County Agricultural School, four home making schools in the state were visited preparatory to outlining a home making course in the proposed department for girls at the Norfolk County Agricultural School. The course has been formulated and accepted but owing to complications in the organization of the boys' department the establishment of the home making course has been indefinitely postponed.

Office Records

Project files for recording work done in various projects have been established. It has been possible by the use of various colored cards to list the following necessary information regarding the development of town projects: (1) Work done by the Farm Bureau office. (2) Local project leaders. (3) Local women interested in projects. (4) History of the project in the town.

Activities of Home Making Department

In response to requests from Granges and other organized groups several talks have been given on the work which the home demonstration agent is promoting. This opportunity has served in many instances to explain the Farm Bureau organization and the possibility of service which it is prepared to give to individuals and communities in the county.

FOOD—ITS RIGHT USE

Continued food saving and substitution which was practiced by the majority of people during the war has caused noticable reaction this past year toward the subject of food. Relief from stringent food regulation has tended to make any phase of the food subject uninteresting to people. The food project, which was the major one last year, has temporarily dropped into the background, special emphasis having been placed this year upon proper foods for children and the value of milk in the diet of children and adults.

Talks on Food Selection and Food Combinations.

Occasional requests for talks and demonstrations on food selection and the right combination of foods have come from organized groups to be given as one number in a series of lessons. The dietetic value and financial economy of milk as a food has been stressed through talks, exhibits, and circulation of literature.

Special Diet Work

A cooperation which has been established by the city home demonstration agent with the Red Cross home visitors and the city welfare workers has made it possible for the city agent to give assistance in pescribing special diets where needed. Through conferences and recommendations of literature to the workers and home visits to the families where help is needed the city home demonstration agent has been able to fill a need which the other welfare workers could not meet.

Classes in Invalid Cookery

During the epidemic of influenza, a group of girl scouts in one town felt that they could have been of assistance in the community if they could have prepared broths and simple foods for invalids. A request was made of the home demonstration agent to give a simple course in invalid cookery to the girls and a series of six lessons was given. Following this course requests came from girl scouts in two other towns for a similar course. The second course has been given and plans are under way for a third.

Supper Clubs

Weekly supper clubs for business women are an enterprise carried on under the supervision of the city home demonstration leader at the community house in Quincy. The work is so directed that groups alternate in planning the meal and ordering supplies, preparing the meal, and acting as housekeepers. Through the formation of these clubs a course in the preparation of simple supper dishes was made interesting as well as instructive.

Mid-Morning Lunch for School Children

As a result of the measuring and weighing of the children in the Quincy schools, the city home demonstration agent was able to cooperate in introducing a mid-morning lunch for the general health of all the children and to bring up to normal the under nourished children. A milk fairy story and an illustrated talk on the value of milk as a food was given to the children as a means of arousing their interest in the milk lunch. One hundred and twenty dollars were contributed by the Red Cross for the purchase of equipment necessary for the lunch. Hood and Son, milk producers, cooperated in furnishing the supply of milk and paper cups. The lunch consists of a glass of milk served at the recess period by the older girls at the rate of three cents per cup. A surplus of money obtained from this charge has been used for providing milk for those who need it but are unable to pay for it. An average of three hundred and fifteen children are served each day in one school and requests have been made from two other schools for a similar lunch.

FOOD PRESERVATION

With the impetus of the war removed the abnormal amount of food preservation done during the two previous years has been reduced to an amount which the family will use under normal conditions. Pat ictic motives are no longer necessary in stimulating greater food preservation.

The experiences gained through failures and successes in food preservation have made people realize that home preserved foods under right conditions are not only a financial economy, but give a satisfaction which cannot be expressed in terms of money.

Lectures and Demonstrations on Food Preservation

A thorough campaign of lectures and demonstrations in canning and drying food during the war has made it unnecessary to epeat this work during the past year. Through the circulation of literature and in answering telephone calls information has been given where needed. An effort has been made this season to present through demonstrations, suggestions which have recently been brought out in experimental work with jellies, jams, and fruit butters. The possibility of using less sugar in these products and obtaining the maximum quantity from the minimum amount of fruit has been emphasized.

Home Visits

Home visits have been made for the purpose of assisting people with any difficulties encountered in preserving. In one home where twenty jars of peas were lost through the use of improper methods in canning, information has been given which has assisted the woman in canning successfully all fruits and vegetables.

County Market Information Bureau

The county market bureau containing the names of producers of fruits and vegetables in quantity in Norfolk County which was established last year thus been amplified and advertised among the county people. During the preservation season this bureau was used by many women who were interested to secure fruit and vegetables in quantity for preservation.

WARM SCHOOL LUNCH

Visits were made during the winter months to consolidated and out ying schools in the county for the purpose of observing the lunch condition. In the majority of the schools visited there were from fifteen to seventy-five children eating a cold noon meal. The interest of school officials, local organizations, and parents was solicited and steps taken to serve a warm dish with the lunch. Lack of finances made progress slow, but though he excellent assistance and cooperation given by local women's committees lunches were started in three towns. In ten other schools where the lunch had previously been established, assistance was given by the home demonstration agent in completing the organization and overcoming difficulties encountered. That the warm school lunch—has been of value in improving the physical, mental and moral conditions in the schools has been brought out in reports given the home demonstration agent from teachers in schools where the warm lunch has been introduced.

Organization of New Lunches

Each town presented an individual problem in organizing a warm school lunch, but no problem was so complex that it could not be over come. In the towns where the lunches were started talks were given by the home demonstration agent before parent-teachers' associations, woman's clubs,

and granges to arouse local interest in the need for the lunch. Further assistance was given in furnishing lists of equipment needed for the lunch, providing recipes, and through conferences to assist in the organization.

Assistance Given to Promote Lunch

Assistance has been given ten schools where the lunch has been previously organized. The assistance varied, depending upon the local problems. In one rural school where only cocoa had been prepared, a demonstration was given in the preparation of a cream vegetable soup. Following the demonstration a weekly menu was established including a different soup each day with cocoa served only once a week. Problems in the organization of the serving of the lunch were encountered in several towns and assistance has been given.

County Chairman of Warm School Lunch Project

At the last annual meeting of the Farm Bureau a county project chairman for the warm school lunch was appointed to coordina'e the work and assist the local project leaders and the home demonstration agent in furthering the project. Four lunches were visited by the county chairman and the home demonstration agent during the late spring and it is hoped that the remaining schools in the county will be visited this coming year to note conditions and give assistance. A report of the work done in promoting the warm school lunch in the county was given by the project chairman at the sectional county conferences held in June.

Talks Given to Promote Warm School Lunches

Nine lantern slides have been made from pictures taken of the warm school lunch work done in the county. These slides have been used by the home demonstration agent in giving an illustrated talk on the subject of warm lunches for rural schools at the state conference of school superintendents and at a conference of Plymouth County women.

HOUSEHOLD MANAGEMENT

Everyday problems confronting the housewife this past year have made her feel the need of a better understanding of the business of housekeeping. The impossibility of securing assistance in the home has created an interest among women in the organization of housework and the selection and use of labor saving devices. The thrift campaign which is being urged throughout the country together with the abnormally high prices has made the housewife feel that keeping a record of household expenses is the logical way of planning the resources to make the income meet the needs of the family.

Demonstrations in Making Fireless Cookers and Iceless Refrigerators

Sixteen demonstrations have been given on the construction of a home-made fireless cooker and iceless refrigerator before granges and groups of women. Printed directions for making the devices were circulated as a result of the interest shown. Following the demonstration seven home visits were made to follow up work among people who had indicated a desire

for one or both devices. Four iceless refrigerators were constructed and the owners reported during the summer that they averaged to maintain remperature of 12 degees lower than the surrounding air.

Household Accounts Carried on in Organized Groups

An effort has been made to arouse interest among women in the county in keeping household accounts. A simple household account book has been compiled by the state college and copies printed for distribution throughout the state. Groups of women in six towns in the county have been organized to carry on household account work. Assistance has been given the home demonstration agent by a state extension worker in carrying on the work. Two meetings have been held with the organized groups, one to explain the value and need of keeping accounts and to explain the state household account book and the second meeting to help the women with problems encountered after keeping the accounts. Future meetings will be planned with these groups from time to time and demonstrations arranged to assist in adjusting the expenditures of the income. One hundred household account books are being used in Norfolk County.

Household Management Course

A series of eight lectures and demonstrations based on everyday problems of vital interest to the housewife has been arranged by the State Agricultural College. County and city home demonstration agents have made arrangements for these courses to be given in Norwood and Quincy by a state extension worker. The meetings have been well attended, literature distributed, and forty household account books sold.

Home Making Departments of Women's Clubs

The home making departments of four women's clubs in the county have requested the assistance of the home demonstration agent in planning a winter program and securing speakers for the department meetings. Household management has been the phase of home making selected for concentrated study and programs of this nature have been arranged for the monthly meetings.

CLOTHING

Contrary to the conditions during the war interest in the clothing project has taken precedence during the past year over other projects. This may be accounted for in two ways; (1) Because of the vast increase in the cost of clothing materials and commercially made garments; (2) Because of the very practical clothing efficiency courses offered to the people by the state extension service. Two phases of clothing instruction have been emphasized in this county, the possibilities of renovating and remodelling clothing and the elimination of waste time, motion, and material in clothing construction.

Series of Lectures on Textiles and Intelligent Buying

A series of five lectures on the selection of textiles and intelligent buying was given in two towns in the county by Mrs. Woolman of the state extension service. In one town this course served as the winter program for the home economics department of the Women's Club and was well attended by the club members.

Demonstrations and Classes in Clothing Remodelling

As a means of arousing interest in classes in clothing remodelling a demonstration was given in two towns to show the possibility in remaking garments which were not too badly worn. A class of ten women was formed in one town and a series of six lessons given in renovating and remodelling clothing. Each member succeeded in remodelling at least one dress, others doing two or three garments.

Clothing Efficiency Courses

Eliminating waste time, motion and material in constructing garments was the slogan of the clothing efficiency courses given by Mrs. Reed of the state extension service in Walpole, Franklin and Quincy. Ten members were selected for each class with the idea that these members should act as local leaders in the community, passing on the information which they received. The application of the women for this course in short cuts and efficiency in clothing construction has been demonstrated by the excellent carry on work done by each group. One lesson in the course was devoted to the consideration of clothing for health and proved to be of great value to the women. The demonstration given to each class in the proper selection and adjustment of the corset not only improved the appearance of many of the women but gave them comfort and relief which they had never before experienced. The home demonstration agent became a member of the Walpole class and prepared Larself to teach the course in other towns.

Clothing Fificiency Clubs

Well organized clothing efficiency clubs with a president and secretary were formed in three towns at the close of the clothing efficiency courses. These clubs were organized for the purpose of carrying on to other women the information which had proved so valuable.

As a result of the carry on work thirty-eight women in Franklin have been completely taught by efficiency club members, 153 garments have been made and a new group of thirty has been organized for the work this year. Twenty women have been completely taught by the Walpole efficiency members and 154 garments made. Twenty women in Quincy completed the clothing efficiency course under Mrs. Reed. These members and the heme demonstration agent have since taught forty-seven other women the information which they as original class members received. In each community other clothing efficiency clubs hold regular weekly or bi-weekly meetings to discuss work accomplished and plan new work.

Local Leader Made Paid Assistant

The demands for clothing efficiency course throughout the county have been so numerous that the home demonstration agent has been able to reach but a limited number. Arrangements have been made with the president of the clothing efficiency club in Franklin to assist the home demonstration agent in teaching clothing classes in other towns in the county. With this assistance clothing efficiency classes have been organized in seven towns and a series of ten lessons is being given to a group of eight women in each town. Carry on work will be started by these members as soon as the course is completed.

Health activities which will react in the home for better living conditions and the improved health of the family have been engaged in by the home demonstration agent. With the cooperation of state and local health agents enterprises which have emphasized the health of children have been introduced in several towns.

District Nurse Appointed

In view of the fact that there were no available nursing services for the town of Holbrook one part of the two day extension school program was given to the consideration of this subject. Dr. Champion of the State Board of Health in a general talk on health in the home and community emphasized the need and possibilities of a district nurse in the community. At the close of the school a health committee was appointed with an ex-nurse as chairman to investigate the sentiment regarding a district nurse for the town. Within six weeks a men's committee had been formed to cooperate with the women's committee, local interest aroused, a district nursing association formed and officers appointed and a house to house canvass made result ng in the raising of eleven hundred dollars. Two months from the date of the close of the school a public health nurse was appointed. Several conferences have been held with a nurse to give cooperation and assistance in carrying on the work.

Health Centers Established

A health center equipped to give information in the care and feeding of children, first aid, and the home nursing, is a valuable asset in a community. An excellent example of what may be done along this line has been demonstrated by the district nurse in Medfield. A room has been secured and fitted up for the purpose of giving health instruction to girls and women in the town. The home demonstration agent has cooperated with the nurse by providing child welfare and tuberculosis charts for exhibition and providing literature for distribution. A course in invalid cookery is being given by the home demonstration agent to a group of girl scouts to supplement courses in first aid and home nursing which they have received at the center.

Members of the Civics Department of the Walpole Women's Club have been interested in the Medfield center and the home demonstration agent has been requested to assist this committee in fitting up a similar center and carrying on public health instruction in Walpole.

Two-Day Health Programs

In cooperation with the State Board of Health two-day health programs were held in Canton and Franklin. These programs were arranged to interest both children and adults. Illustrated health talks were given in the afternoon for children and in the evening for the parents. Talks on food and its relation to health, foods for children, and general health talks were given, attractive health exhibits displayed and health bulletins distributed.

Distribution of Literature to District Nu scs

Copies of bulletins on the care and feeding of children, published by the State Board of Health and the Children's Bureau in Washington have been sent to all district nurses throughout the county. A quantity of this literature has been furnished upon request and a supply maintained in the health centers.

Local Dental Clinics for Children

Assistance has been given through conferences to local committees in Cohasset and Stoughton regarding the organization and conduct of dental clinics for school children. In both instances it has been made possible for all school children to have teeth examined, work to be done noted, and recommendations sent home to parents. Plans are being made for carrying on work for a nominal sum among children from homes that otherwise could not provide for treatment.

Tooth Brush Campaign

A campaign for better care of the teeth among school children has been furthered by the home demonstration agent. Samples of seconds in tooth brushes which can be sold from five to seven cents apiece have been secured and recommended to district and school nurses and local committees. Seconds in brushes have been sold to school children in six towns and ten gross of brushes have been distributed among school children.

Health, Child Welfare and Tuberculosis Charts Loaned

In towns where there are district or school nurses health talks are occasionally given to the school children. To assist the nurses in giving these talks and in order to make the talks more vital to the children a set of illustrated health charts owned by the county has been loaned to several nurses. These charts are to be circulated throughout the county until each nurse has had an opportunity to use them. A set of child welfare and tuberculosis charts has been donated to the county to be loaned to the various towns. Two towns have already had the benefit of them and a third town has requested them for exhibition in its health center.

Weighing and Measuring Campaign in the Quincy Schools

A weighing and measuring campaign was carried on in the Quincy schools at the beginning of the fall term for the purpose of determining the number of underweight children in the schools. The result showed a large percent of children under weight in the sixth and seventh grades and 60% of the children found to be drinking coffee. At the suggestion of the home demonstration agent a mid-morning lunch of milk was established to correct this difficulty. An account of the lunch has been given under the food project.

Norfolk County Agricultural School Farm Bureau

ANNUAL REPORT OF JUNIOR DEPARTMENT

December, 1919

The report will be in two parts. The first will be according to definite projects. The second will be a report of correlated work.

In all the clubs the method of procedure has been practically the same. Talls were given in schools, groups organized, leaders secured where possible and as much visiting and follow up work done as time would permit.

PIG CLUB: Pig club work was carried on in ten towns this year. There were five organized clubs. The total enrollment was 106. The records on this club are not due until the fifteenth of this month so no summary can be made. Several things, however, are worthy of notice in the development of the work. While the war time interest dropped somewhat those who did enroll were much interested and conditions as a whole were much more satisfactory. The present growth of the pig club is toward better stock kept in better places, with the use of pasture and home grown crops for feeding.

GARDEN CLUB: Worked on in eleven towns. The enrollment was better than last year and the finish was better. The report revised up to date is number of members 155; number finished 103. A special phase of garden work this year was the development of demonstration teams on garden problems. In addition to the regular club members there were a great many boys and gills having gardens who were assisted by the Farm Bureau.

POULTRY: The poultry club is showing the best growth of any of the club projects. The work began December 1st, 1918, and ran for six months and then those who desired continued to November first. Enrollment 1918 was 72. Reporting after six months 53. Finishing year contest 17. At present there are seven organized poultry clubs with a membership of 103. New groups are being organized as fast as arrangements can be made for them.

CALF: A new club which promises to be of value in certain sections is the calf club. Much time was spent last spring and summer developing this project. A number of boys in several sections joined the club and did good work. As a whole the club was experimental and as such was successful. With the information already obtained, more definite lines will be worked out for development in the spring. A goal of fifty boys and girls raising fifty grade or pure bred heifers has been set for 1920.

HANDICRAFT: Quite a little time has been given recently to the development of a Handicraft Project for Massachusetts. This is a common club in many states and for some time there has been a demand for such a one here. Suggestive outlines of work have already been made and clubs will be organized soon after Christmas. We hope the handicraft work will have a tendency to encourage club members to make more of their own equipment and help them in making it.

CORN, POTATO, etc. The other agricultural projects such as corn, potato, and sow and litter have been promoted among the individuals where advisable but no definite drives have been made on them.

This is a brief summary of the projects. Following are a few of the spe-

cial features of the past year in the various projects and correlated work. These features cover all work of the Junior Department and are not limited to my own projects. They will be taken up in chronological order.

CLUB NEWS: The custom in the past has been to send special letters to each group of club members regarding their special project. In this way a canning club member would know only about the canning club and a pig club member only about the pig club. Sending letters like this entailed a great deal of work and did not give the best results.

Beginning in March the "Norfolk County Club News" was started by the club leaders. The object was to get together news of club work in all projects and material available for all club members. In part it has done away with monthly and special letters since most of them are contained in the "Club News". Approximately 1000 copies are self to oys and girls each month. The club members are on the lookout for them and find them a real addition to club work.

TWO-DAY TRIP: First prize county winners get as a prize a week at the summer camp at the Massachusetts Agricultural College. The second prize winners get a book or other small prize. This year the Society for the Promotion of Agriculture made available \$100.00 for each county to be used as prizes in the development of Junior Extension work. With a part of this money, in conjunction with a similar group from Middlesex county, 14 club members—2nd prize winners or members who had done especially good work—were taken on a two-day automobile trip to the Massachusetts Agricultural College. The Junior Extension people at the college did their best to make the trip instructive and interesting. During the short stay there our club members were shown the orchards, cold storage and poultry plants, dairy, sheep and swine departments. A dairy cow judging contest was staged for the club members. Norfolk County boys won second and third ribbons, 1st going to a Middlesex County girl.

No prize of any kind—whether medal, cash, or club equip 'en'—can in my mind be better or of more value to a boy or girl interested in agriculture than a well planned trip to our State Agricultural College.

COUNTY FIELD DAY: August 20th was the big day for club work in Norfolk County during the summer. Over 250 club members with a number of leaders and other interested adults met here at the school for the summer club round-up. A great deal of thought and work was put into making it a day of education as well as celebration. Demonstration competitions were carried on in canning, gardening, and poultry work. At this Fie'd Day the county champion teams were selected. Exhibits were also staged by club members. In addition to these the various departments of the school set up exhibits, gave demonstrations, conducted groups around the farm, and helped a great deal in explaining special phases of our Norfolk County agriculture. Mr. Sumner Dole, county leader for Berkshire County, was called in for the day to take charge of sports.

FALL FAIRS: The larger fairs throughout the state, and I believe all over the country, are giving more and more opportunities for club members to compete with one another. This year there were three of special promience in Massachusetts,—the New England Fair at Worcester, the Eastern States Exposition at Springfield and the Brockton Fair.

NEW ENGLAND FAIR: At the New England Fair, Norfolk County Club members made a very favorable showing. The towns of Weymouth and Cohasset on their vegetable displays won second and third places, fifteen and ten dollars respectively.

The county poultry demonstration team won second prize in its competition and the calf team won the state championship at the same fair.

Canning club members also made an excellent showing, taking a number of the best prizes in the hardest classes.

EASTERN STATES EXPOSITION: Seven members went as delegates from Norfolk County to the Eastern States Exposition to represent Massachusetts in various competitions. The pig judging team was assigned to Cohasset by the state pig club agent. It was selected there by competition, resulting in the picking of two boys and one girl. At Springfield they won second place in a hard competition. The calf team which had won at the New England Fair also won the Eastern States championship in dairy demonstration. The garden demonstration team placed third with a demonstration on planning a garden. In addition several of our members went in to fill out on other teams, winning medals in handicraft demonstration and judging and vegetable judging. A special achievement was the winning of a Guernsey calf by a South Weymouth boy as third prize in a dairy cow judging contest in a class of 54 competitors.

Here again, as at Worcester, canning exhibits ranked high and won several medals for the exhibitors.

The county bread and canning demonstration teams also spent several days at the Exposition as guests of this county.

Anyone who was not present cannot begin to appreciate what Camp Vail and the Eastern States Exposition meant to the 300 club members in the camp; but those who were there all want to go again and it is the hope of the club leaders that another year Norfolk County may be even better represented there.

BROCKTON FAIR: The Brockton Fair is near home but in the junior departments Norfolk County club members may compete only in pig club work. In this they took the larger share of the prizes on pigs, four out of five prizes on pig judging, and three out of five prizes on combined cattle and pig judging.

Another point of special interest was the showing in the adult class made by a canning club member, Emily Hallowell of Norwood. She received fourth prize on her collection of canned products, competing with men and women of long experience in the work.

LOCAL FAIRS: The community or town exhibit is growing to mean more and more to the young people of the communities. This year the county leaders assisted in nine such exhibits. These local fairs serve in a large measure to tie up the summer's work and should be encouraged as much as possible.

DEMONSTRATION WORK: Demonstration work has been an important phase of the Junior work this year. Groups of two or three called teams have been trained to demonstrate special phases of club activities and have helped a great deal in developing club work. They will be used much more in 1920.

JUDGING: Working along with the demonstration teams we have been developing a few judging teams. We believe that if the club members can get a better idea of what a first class product is they will have a better chance of reaching that ideal in their own work. The team and competitive work is to give comparison and interest while the work is going on.

ORGANIZATION: Adult—The Junior Department had hoped that an organization to take care of club work with representatives and leaders from each town might be perfected in 1919. The county leaders have as yet been unable to develop such an organization so it is passed along as a hope for 1920.

Junior—The Junior organization the "Norfolk County Success Club," has grown steadily and is very helpful in developing club work. As a part of the success club organization several club members have acted as club leaders during the past summer. In 1920 we hope the club members will take still more responsibility in handling club affairs.

State—It may be of interest to some people to know that early last spring the county and assistant county leaders of Massachusetts formed an organization to work out problems in club work together. This organization has been very helpful and has led to a much better understanding of some phases of our work. The group has met in conference five times.

The work of the assistant county club leader divides itself by projects and scasons. From January 1st to May 1st is the home economics or bread and garment making project, from May to November the canning club project, and from November to January the organization of the new home economics clubs.

The aim in organization of clubs during the past year has been to meet the call from the communities and to introduce the work to a few new ones. The enrollment has been kept small enough to do systematic follow-up work and allow as much personal contact as possible between county leader and club member. This has meant more intensive work by the county leader in communities where local cooperation was poor but the need of the work apparent.

Much of the Junior Extension work is done through the schools since the teachers have been secured as local leaders. This is not advisable, however, since the school system is a transitional organization with superintendents and teachers constantly changing. To be a permanent part of the town organization local adult support is absolutely essential to the work. There has been a decided increase in this in 1919. Several talks have been given to Women's and Mothers' Clubs resulting in advisory committees, if not actual leaders.

The procedure followed in both club projects has been the same. A local leader was first secured, then the club requirements presented to the children from the sixth grade up through the schools. The club is then organized with officers and local leaders.

Follow up work by the assistant county leader has consisted of programs of meetings sent to leaders and primers of instruction to members. Visits to every club once a month were planned and special instruction presented at this time. The county club paper carried help each month. The final exhibit was judged by the county worker. Correcting records and stories completed the routine of each contest.

Quite a little time has been spent in training demonstration teams in bread and canning for county, state and interstate contests. Six towns sent canning demonstration teams to compete at the summer field day which added unusual interest to the affair.

In the 1919 home economics project, 26 clubs were formed with an enrollment of three hundred and fifty, two hundred and eighty five of whom (thirty-five of them boys) completed all requirements with sixteen banner clubs, an 81% record. Two hundred and seventy-seven garments and nine thousand one hundred and four loaves of bread were made during the contest.

The canning contest was given new interest by the introduction of an advanced project. This was adopted by Hampden and Norfolk Counties with great success. Only five members out of fifty nine failed to complete the more difficult requirements. The added interest taken by the girls, the amount canned and the quality and skill shown, demonstrated the advantages of a graded project. Among the unusual verieties canned by the members were rabbit, pigeon, chicken, veal, clams, lobster, oysters, salmon, mackerel and baked beans. One thousand five hundred and eight jars of jelly were put up by the fifty nine girls doing second year work.

The county record was as follows: Number of clubs 25; enrollment 234; number completing 150; jars canned 13,037, with a valuation of 4491.49. Twelve clubs came out with 100% finish.

Five club members from fourteen to seventeen years old acted as adult local leaders in their towns. This was a new development and a successful one.

As aids in carrying on the work the past year, two training schools in home economics were held in January in opposite ends of the county, and one in canning in cooperation with three other counties in Boston. A conference to interest the domestic science teachers in the home cconomics project was held in November.

As special features in club work, time has been spent outside the county as follows: You will remember at the last annual meeting that the county canning demonstration team was invited by Mr. Benson to Washington as state champions for 1918. Money was raised through the clubs and \$200, took the three girls with the assistant county club leader as chaperone to Washington and back. As guests of Mr. Benson the trip was both educational and entertaining.

In July a week was spent at the Massachusetts Agricultural College as one of the chaperones for the girls' prize winners' camp. About sixty girls were present and it is a week they will never forget.

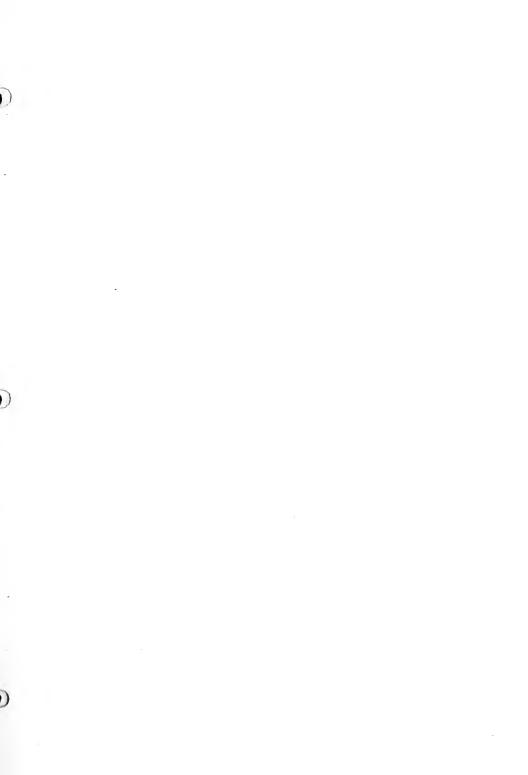
A two day auto trip to Amherst was one of unusual interest given to fourteen club members in late July.

The week of September 15th to 20th was spent at the Eastern States Exposition as one of the state chaperones for the seventy five boys and girls from Massachusetts. This was a most strenuous but worth while time.

Since October the time has been spent entirely in developing the 1920 home economics club. This plans to be larger and higher in quality than before since, like the canning club, it is a graded project.

For the new club year these plans are developing:—A more permanent organization with more local support; higher standards of work since there are more trained leaders; work in demonstrations; and a higher percentage of completions.







Agricultural

NORFOLK COUNTY AGRICULTURAL AND HOME MAKING BULLETIN



CLASS IN POULTRY HUSBANDRY DRY PICKING FOWLS ON THE POULTRY PLANT

PUBLISHED BY

THE

NORFOLK COUNTY AGRICULTURAL SCHOOL WALPOLE, MASSACHUSETTS.

VOL. III

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VOL. III

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No. 26

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TIMELY TOPICS

COUNTY WIDE AGRICULTURAL FAIR

Arrangements are being made for a county wide agricultural fair to be held at the Norfolk County Agricultural School, Wedne day and Thursday, September 15th and 16th, 1920. The idea is to make this a gene al round up of the agricultural activities of the County. Development of plans, prizes, etc., will be announced in later issues of the bulletin.

Three Seniors of the Norfolk County Agricultural School, Egner, Regan and Pratt, presented a lecture before the Ponkapoag Grange on the evening of January 15th. Slides on the subject of "Livestock for Every Farm" were shown and the students gave a very interesting talk in connection with them. This is the first attempt to arrange for the young men in presenting talks outside of the School. The main object in having some of the students present these lectures outside is to give them practice in public speaking. This was their first public appearance and the lecture presented was a credit to them. The boys moreover felt that the experience was well worth while and are more than willing to go out with any slides they are asked to present.

The Winter Meeting of the Federated Massachusetts Beekeepers' Association, Inc., will be held in Horticultural Hall, Worcester on Saturday, February 21, 1920. Addresses by prominent bee men of the country will be given in the afternoon.

The Instructors and pupils of the School and those of the Weymouth Department attended the Union Agricultural Meetings and exhibits at Horticultural Hall, Boston, Wednesday and Thursday, January 21st and 22nd. The boys took notes and each wrote a thesis on the subject in which he was most interested.

AGRICULTURAL DEPARTMENT

Test your seed for germinating ability. It is an expensive proposition to fertilize and prepare a piece of land for planting. Why not ask the seed this question, "To what extent may I depend upon you?"

Fertilizing material is quite expensive and there does not seem to be any reason for us to think prices will drop in the near future. Those who have a manure pile should take good care of it. Do not let the liquid portion leach away or permit the rains to wash away a large amount of the plant food material. Barnyard manure is deficient in phosphoric acid and consequently is not well balanced as a fertilizer. To overcome this condition it is recommended that you use acid phosphate at the rate of about forty pounds to each ton of manure. This may be applied at the time of hauling the manure to the field, spreading it evenly over the load.

It is time and money well spent to repair or replace such parts of the farm equipment as are worn out or broken.

Do not forget to spray the orchard while the buds are dormant. This will destroy San Jose and oyster shell scale. Attend to the pruning of the fruit trees. Any cuts over one inch in diameter should be treated with a coat of paint. This prevents the entrance of any fungus into the wound.

All grape vines should be pruned at least six weeks before the sap starts to run, otherwise a loss or bleeding will take place which has a tendency to weaken the plant.

Spray barrels, tanks and pumps should be carefully looked over and if any new parts are needed send for them at once as shipments by rail are often delayed which causes not only annoyance but sometimes the spraying is put off until too late to be effective. Have everything ready to do the job when it ought to be done.

GARDEN NOTES

Make a plan of your garden for 1920, listing amounts of seed required of the different kinds of vegetables you and your family enjoy. This garden plan will, of course, show the companion and succession cropping which insures a plentiful supply for daily use and a surplus to can for the winter. As soon as possible mail your seed order to your seedman, he will appreciate both your order and its earliness. This will give him an opportunity to fill the order while his stocks are full and when he and his assistants are not so rushed as they will be later in the season. By the way, in making up the seed list include a packet or two of the novelties listed in the catalogue. The resulting product may be just what you are looking for, either in size, quality or attractiveness. Out of the large list of vegetable seeds offered a selection may be made which should please the most critical taste.

Have you made arrangements for the supply of barnyard manure, commercial fertilizer and lime which will be required? To expect a bountiful yield without an adequate amount of plant food would seem unreasonable.

Now is the time to overhaul the hotbed and cold frame sash. Any repairs of wood or resetting of glass should be done, a coat of paint applied to the wood and lapping this just over the edge of the glass prevents moisture from getting a foothold and prolongs the usefulness of the sash.

Many of our market gardeners plan to get their hotbeds ready for the sowing of peppers, eggplant, early cabbage, cauliflower, tomatoes, lettuce, etc., by March 1st.

If you have occasion to use flats for tomatoes, cabbage or other early sown plants, get them made up during the next few weeks.

POULTRY NOTES

Better send for the new incubator and brooder catalogues. It is a good policy to put in any orders for poultry equipment and supplies at an early date. This also applies to those wishing to secure stock and eggs for the coming season.

The Boston Poultry Show was a big success. There was plenty of evidence of the revival of interest in the poultry indust y.

Prof. Jones, Extension Specialist of the Connecticut Agricultural College, gave an interesting lecture on the use of "lights" in the henhouse. He stated that their use was becoming quite general in the East, more poultry men installing them as the season advances. He mentioned that some were using lights for too long a period hence not getting satisfactory results. That is, the birds either laid heavily for a time and then stopped production almost completely or the fowls went into a partial most which also lowered the egg yield. Twelve or thirteen hours per day was sufficient, in his estimation. Prof. Jones also stated that morning lighting seemed to be the best as it was harder to keep the hens up at night.

The Government has recently put out an interesting bulletin entitled "Feeding Hens for Egg Production," Farmers' Bulletin Number 1067, which can be secured free of charge by writing to the United States Department of Agriculture, Washington, D. C. It takes up the subject of poultry feeding in a simple and clear manner.

No matter how long or how short a time the litter has been on the floor it should be removed promptly when it becomes damp. When damp, the fowls do not like to scratch in it and there is also danger of disea e infection.

Do not coddle your fowls too much in cold weather. There is no objection to making the house warm and comfortable, within reasonable limits, but warmth secured at the expense of necessary ventilation is a hindra ce rather than a help. The laying house should have ventilation enough to keep the air dry and pure. Fowls will do much better in a well ventilated, cold house than in one that is warm, but with damp, foul air. In extremely cold weather special precautions need to be taken.

If the pullets or hens seem to be in good laying condition but refuse to lay, try a warm, moist mash once a day, mixing it with milk, table scraps, boiled vegetables or anything else that will make it appetizing.

The most convenient way to thaw out frozen eggs so that they will be injured as little as possible is to place them in cold water. Use them at home when thawed out. Customers paying the retail price of eggs at this time have a right to expect a strictly first class product and frozen eggs do not come under that head.

Keep the breeding stock busy. Do not feed too heavily for eggs and use an abundance of litter. Nothing will contribute so much to fertility as plenty of exercise for the breeding stock.

Muslin curtains should be kept clean. When coated with dust they are of little value as ventilators and practically worthless for light.

REPORT WEYMOUTH DEPARTMENT

The Weymouth Department carried on the work during the fall term with nameteen students enrolled. One of this number came from Cohasset while the remaining eighteen came from some part of the town of Weymouth. A few of the boys live within walking distance of the building but the majority rely on the electric cars. The boy from Cohasset comes on the train.

This section seems to be well adapted for poultry and where possible the boy is encouraged to start a poultry project his first year and carry it through his four years, developing it each year to a higher degree of efficiency. At present twelve of the boys have poultry projects.

Five of the boys have from one to five cows at home from which to get experience. One boy in particular is taking care of five cows for a party nearby who furnishes the cows and the barn. They take out the cost of the hay and grain from the milk receipts and split 50 - 50 on the balance. The boy has made, as his share of the profits, ranging from \$36. to \$20. per month which gives him a good financial proposition as well as a chance to learn something regarding the care of cows and handling milk.

One boy in particular deserves special credit for the prizes won during the year in connection with the Club work.

Following is a list of prizes won by Adrian Barnes of South Weymouth. He is in his third year and is so shaping his course that he will enter the Massachusetts Agricultural College after another year's work here.

$\mathbf{Priz}e$	Description of Exhibit	Place of Exhibit
Award of Merit	Collection of Vegetables	HOFTEGULUTAL PASTON, MIG-WILLS Exhibition
First, \$8.00	Pig	Brockton Fair
Second, \$6.00	Pig Judging	Brockton Fair
First, \$75.00	Livestock Judging	Brockton Fair
First, Blue Ribbon	Garden Demonstration Team	County Contest, Walpole
First, Week's stay at Eastern States	Garden Demonstration Team	Worcester Fair
Exposition		
Third, Bronze Medal	Garden Demonstration Team	Eastern States Exposition, Springfield
Second, Silver Medal	Handieraft demonstration	Eastern States Exposition, Springfield
Fourth, Bronze Medal	Vegetable Judging Team	Eastern States Exposition, Springfield
\$35.00 (Total of Prizes)	Vegetables of various kinds exhibited	
	at the Weymouth Fair	Weymouth
Second	3 year old Barred Rock Hen	Boston Poultry Show
First, Year's subscription Everybody's,	Barred Rock Pullet	<i>11 14 15</i>
Poultry Magazine		
Fourth	Barred Rock Cockerel	77 77 77
Third	Rhode Island Red Cockerel	77 77 77
Third	Rhode Island Red Pullet	" "
Second, Year's subscription Poultry	Pen of Rhode Island Reds (Young)	2 2
Journal		;
First, Lippincott's Poultry Book	Model Trap Nest	33 33 33
First, Lippincott's Poultry Book	Model Brood Coop	, , , , , , , , , , , , , , , , , , ,
Second	Model Feed Hopper	33 gr 33
First	Pictures of Farm Flocks	27 27 27
Second, Tub semi-solid buttermilk	Model Hen House	33 35 35
First, 50 lbs. Ful-o-pep mash	Collection of Poultry Grains and Feeds	<i>a a</i>
First, 100 lbs. Ful-o-pep mash	Collection of Green Feed	מ ע ש
First 65 egg incubator	For largest and best display by Club	, a d
	member in the State	

HOME MAKING DEPARTMENT

MID MORNING LUNCH OF MILK

Quincy Home Demonstration Agent Tells How the Health of School Children is Improved

Following the opening of the Quincy schools in the fall, a two weeks' weighing and measuring campaign was carried on among the school children. The results showed many children under weight, the largest proportion of children occuring in the sixth and seventh grades when the children are beginning to lengthen out. It was rather surprising to many parents to find that the largest percent of under weight children in any one district was found in the better residential sections of the city. Investigation also disclosed the fact that from 50 to 60 percent of the children were drinking tea and coffee.

An effort was made to interest the children in improving their weight by posting the weight records in the schools, by the use of charts and health talks in the schools, and by personal notes to parents calling attention to the defects in the child and suggesting remedies.

The home demonstration agent realizing that many cases of underweight are due to thoughtless diet and that milk is the best food for children urged that milk talks be given in the schools. Following this suggestion illustrated milk talks were given by the milk commission in Boston in every school. Because of the interest aroused by these talks a midmorning lunch of milk in the schools was suggested. The local Red Cross chapter considered this a sufficiently valuable public health measure to make an appropriation of money to assist in starting the lunch. It was found possible to sell a six ounce cup of milk to the children for 3c a cup and at the present time an average of 315 children are served daily.

Good results have already been noted. There has been an increase in weight among the children, the teachers report less unrest, no languid, sleepy children in the middle of the session, and a better grade of work done.

With these results gained by so simple a thing as the addition of a cup of milk served at recess time and not interfering either with school routine or playtime, other schools are asking for the milk lunch. The lunch has already been started in several other schools and will be introduced in the remaining schools as soon as the problem of organization can be overcome.

DOES THIS COME UNDER EFFICIENCY?

Efficiency Club Member Writes Home Demonstration Agent to See If She Is Making a Practical Application of This Word

Members of the clothing efficiency classes have been so impressed with the value of efficiency in clothing construction that they have become alert to efficiency in any phase of home making. We take pleasure in printing an excerpt from a letter which the Home Demonstration Agent received a short while ago.

"While attending with my husband a conference for the Travelling Engineers' Association I heard a representative of the U. S. Fuel Conservation Committee give an address. About the only thing that impressed me

in this talk on the subject of "Locomotives" was that there is eight times more heat resistance in soot than in asbestos. Upon returning home I told my husband that it was useless to know things if we didn't put them into practice. Consequently we took the range apart and brushed out carefully all the corners and the stove pipe. Since this has not been done in two years there is a great difference in the amount of heat which we receive.

I thought that in view of the present coal situation this suggestion might be of value to other people."

FAVORITE RECIPES USED IN NORFOLK COUNTY

Is Your Family Familiar With Them?

Casserole Dinner

Put 1 lb. of lean beef from the chuck in a casserole or bean pot. Add one half teaspoon of salt, one tablespoon barley or pearl tapioca, one carrot or onion cut fine, and one half can of peas. Cover with water put on cover and place in oven. Allow it to cook for four hours. If necesary add a little water as it cooks away. This makes a tasty and inexpensive dinner and will serve three people.

MRS. A. W. OWEN, Foxboro.

Creamed Quohogs

Cut two slices of fat salt pork into dice and try out fat in a frying Add to this six chopped quohogs and 2/3 c. water. Bring to the boiling point and add 2 T. flour mixed to a smooth paste in cold water. Cook five minutes and serve on toast.

MRS. O. L. SCHUBERT, Plainville.

Ginger Snaps

1 c. sugar

1 t each soda, salt a d ginger

1 c. molasses

½ c. boiling water

1 c. melted shortening

1 T. vinegar

Add enough pastry flour to make sufficiently stiff to roll thin. Bake in a hot oven.

MRS. F. B. BROOKS, Holbrook.

Brown Bread

2 c. graham flour 1 c. white flour

½ pkg. raisins 1 t. baking powde"

1 c. molasses

1/2 t. salt

1½ c. sour milk

1 t. soda dissolved in molasses

Steam 2 or 3 hours

MRS. A. E. BARNES, South Weymouth.

Roxbury Cakes

1/4 c. butter substitute

1 t. cinnamon

½ c. sugar

½ t. cloves

yolks of two eggs

grating of nutmeg

½ c. molasses

½ t. salt

½ c. sour milk

½ c. walnut meats

1 t. soda 1½ c. sifted flour

½ c. seeded raisins beaten whites of two eggs

Follow general directions for making cake and bake in cup cake tins. This makes eighteen or twenty cakes. A pecan nut may be placed on top of each cake.

BLEACHING COTTON FABRICS AND REMOVING LETTERING FROM FEED SACKS

Worcester County Bulletin Gives Valuable Suggestions On This Subject

Material must be carefully examined to make sure that it has not become weakened in wearing. It is easier to handle the fabric in pieces, but if the garment is made up in a simple design without tucks or overlapping seams, it can probably be successfully bleached in the whole, after ripping off all hooks and eyes and letting down the hem.

For bleaching delicate fabrics such as voile, dimity or organdy, the following directions are suggested:

Soak fabric in clear cold water to moisten fibre. La'her gently with naptha soap and immerse fabric in a sufficient volume of clear cold water to entirely cover material.

Put on the stove and bring slowly to the boiling point. Remove from stove and rub gently through the hands to discharge colo.—if necessary repeat process. Rinse thoroughly. Prepare the following solution:

Javalle Water

1 lb. sal soda

1/4 lb. chloride of lime

3 quarts water

Dissolve the sal soda in two quarts of boiling water. Dissolve the chloride of lime in about a quart of cold water; let it settle and strain it. Pour this into the boiling soda. Let this mixture boil about ten minutes and then allow it to cool and settle again. Pour off into jars or bottles. Keep well corked and in a dark place.

Add one teacupful of the above solution to a gallon of cold water, immerse material and boil. Repeat if necessary. Rinse thoroughly. This method should discharge all the coloring matter and at the same time bleach the fabric snowy white.

For firmer, heavier cotton fabrics use a stronger lather of naptha soap and rub out the color on the board instead of through the hands. Af er rinsing thoroughly, add from two to four teacupfuls of the Javalle Water to a gallon of cold water, boil till color disappears—repeat process if necessary. Always rinse thoroughly.

The colored lettering may also be discharged from sugar bags, feed sacks and chicken feed bags as follows:

Open bags, hang in air to blow out loose flour. Soak in cold water to moisten material, lather well with naptha soap or any hard kitchen soap, put on the stove in clear cold water and bring to slow boil. Take from stove, rub through hands or on rub board. This should loosen pai t and give a blurred effect. If it does not, the above process should be repeated. Rinse thoroughly.

Add four teacupsful of Javalle Water to one gallon of cold water. Immerse bags and boil—repeat if necessary. Rinse thoroughly.

ERROR MADE IN DECEMBER BULLETIN

Our attention has been called to the fact that a type error has been made in the recipe Tomato Split Pea Soup which appeared in the December bulletin. The recipe should contain 1½ c. of split peas instead of one half cup as called for in the bulletin. Will you correct this error in your recipe and remind your friends to do the same?

ITEMS OF INTEREST

At the annual Farm Bureau Meeting which was held at the Norfolk County Agricultural School, December 12th, the following women were elected to serve on the home economics council for 1920: Mrs. Joseph Leach, Walpole, Chairman; Mrs. Ernest Waid, Walpole, Secretary; Mrs Mabel Swift, Foxboro; Mrs. Annie Dunn, Franklin; Mrs. J. G. Palfrey, Sharon; Mrs. C. S. Bird, Walpole; Mrs. Charlotte Ware, Norfolk; Mrs. Alice Barnes, South Weymouth; Mrs. George Battelle, Dover.

Home Demonstation Work in Quincy will continue for another year. The work done by Miss Badger during the past nine months has proved to be so worth while and of such value to the women that they were unanimous in endorsing it for another year. Funds to pay one half of the expenses of this work are contributed by the county trustees thus strengthening the home demonstration work throughout the county and centralizing it in the Farm Bureau office.

Have you and your families enjoyed the tried recipes which have appeared each month in the Home Making Department of this bulletin? Many women have signified their approval of them and have asked to have them continued. This will be impossible unless we have our supply rep'enished. We would appreciate a contribution of recipes from each of our readers.

Delicate colors in wash fabrics should be set before the material is made up into garments. The following recipe for setting colors has been given the Home Demonstration Agent by the State clothing specialist: 2 T. salt, 2 T. turpentine and tepid water to cover the cloth. Allow the cloth to remain in the solution over night.

The home economics chairman of one of the local granges wrote the Home Demonstration Agent this past month and asked her to assist this committee of the grange in establishing a warm school lunch in the grammar school in that town. The following sentence is quoted from her letter: "The Home Economics Committee of this Grange is very anxious to accomplish something this year and to be something more than a name."

Has your committee as high a purpose? Plans are under way for starting a warm lunch in this community.

Cocoa and soup is being served daily to the Sharon Grammar School children who bring a cold lunch to school. The responsibility of organizing the lunch is being assumed by the Civics Department of the Woman's Club and funds for financing the lunch have been given by the Woman's Club. As many as sixty children have been served in this school in one day.

The exhibit of garments made from feed sacks which the Foxboro Committee has prepared is being loaned to clothing groups throughout the county. It is being used in South Walpole at the present time. Ask the Home Demonstration Agent to pass this exhibit on to your town as it suggests many possibilities for using feed sacks in making durable clothing.

JUNIOR EXTENSION DEPARTMENT

THIRTY THOUSAND DOLLARS ADDED TO HOME INCOMES BY MASSACHUSETTS CANNING (LUB MEMBERS

It is often enlightening to see the county and state returns at the end of a club season. It may help to answer the question, "Is Junior Extension work worth while to the county?"

The summer of 1919 opened with one thousand fewer members than in 1918; two thousand four hundred and eighty three as against three thousand four hundred and eighty seven. This was explained by the after-thewar reaction toward food preservation. At the end of the season, however, four hundred more completed the requirements than in the previous year, showing the effect of the "carry-it-through" campaign that is being emphasized in the state. The present policy is to do more intensive work with a few and accomplish definite results than to spread the work thinly over a great many and not bring them through to completion.

The greatest value of all the Junior Extension work is without doubt in its character and citizenship training but the economic importance from the financial side must not be overlooked. Seventy-five thousand quarts of canned goods were added to the shelves of the Massachusetts housewives by the canning club members with a valuation of over thirty-two thousand dollars. The total profits to the Commonwealth after subtracting the expenses are about equal for the two years, being over twenty-six thousand dollars. Thus the work of the boys and girls is no small factor in helping to reduce living costs.

JUNIOR DEPARTMENT SUCCESSFUL AT THE BOSTON POULTRY SHOW

Norfolk County Club members take many prizes on birds, equipment, and feeds. Weymouth boy is highest individual winner.

The Boston Poultry Show saw a new department this year when the Junior Extension Service of the Massachusetts Agricultural College, with the help of the County Farm Bureaus, put on a club poultry show which was successful in every way. Norfolk County sent in entries from Dedham, Weymouth, Cohasset, Franklin and Canton and made an especially creditable showing, taking twelve first, six second, eight third, five fourth and three fifth prizes.

Adrian Barnes of South Weymouth was high individual winner with prizes on birds, equipment, eggs, feeds, pictures and in judging. He won a sixty egg incubator given for the best all around prize winner.

The demonstration team, Alfred Files and Leon Bennett of East and South Weymouth, placed third in six teams with their demonstration on lice and mite control.

The judging team, also from Weymouth, placed third in twelve teams with six hundred and eighty-two points out of a possible nine hundred. Middlesex won this event with seven hundred and four points. Essex was second with six hundred and ninety. A partial list of Norfolk County winnings is given here. A special list of prizes won by Adrian Barnes will be found under the report of the Weymouth Department.

LIST OF AWARDS AT THE BOSTON POULTRY SHOW NORFOLK COUNTY

Winfield Price, South Weymouth, 1st on Barred Rock hen.

""" "Ist on Barred Rock pen.

Addison Dingwall, North Weymouth, 3rd on Barred Rock hen.

John Hunt, Cohasset, 1st on Dominique cockerel.

"" "Ist on Light Brahma pen.

"" "4th on White Leghorn cockerel.

Clarence Sutherland, Franklin, 1st on Buff Orpington pullet.

Walter Cope, East Weymouth, 3rd on White Leghorn cockerel.

George Clark, Canton, 4th on White Leghorn pullet.

Clifford Blair, South Weymouth, 3rd on Light Brahma pullet.

""" "4th on Light Brahma pullet.

Lemes Martin South Weymouth, 2rd on White Plymouth Rock pen

James Martin, South Weymouth, 2nd on White Plymouth Rock pen. Mary Modente, Cohasset, 3rd on White Plymouth Rock pen. Alexander McDowell, Dedham, 1st on Parced Plymouth Rock pen. Arthur Newell, Dedham, 1st on male Homer pigeon.

" " 1st on female Homer pigeon.

" " 1st on male Carneau pigeon.

" " 1st on female Carneau pigeon.

Alfred Files, East Weymouth, 5th on Rhode Island Red pen.

" " 4th on brown eggs.

" " " 3rd on trap nest.

" " 2nd on collection of grain. Leon Bennett, South Weymouth, 3rd on collection of grain.

" " 5th on brown eggs.

HOME ECONOMICS CLUBS GROW IN NUMBERS AND ENTHUSIASM

January 1st marked the opening of the bread making and garment making contests of the state home economics clubs. In Norfolk County these clubs prove more popular than the canning and the demands this year have been greater than ever. The growth of the work is noted by the fact that the enrollment is nearly 450, at least 100 more than la t year. This is true in spite of the fact that the work to be done at home has been emphasized and the faint hearted discouraged from attemping it. Nearly one hundred of these are boys, enrolled about 2/3 in the bread and 1/3 in the sewing project. In one club a boy is director of the garment making section of the club. Good results are anticipated from all the clubs where boys enrolled.

Fourteen towns have called for these clubs and the total number in the county is 36. The most satisfactory part of organizing this year has been the comparative ease in securing leaders. While we are still hoping for more housewives to see their way clear to act as local leaders, in several towns committees of women have been chosen as advisors for the teacher who is handling the club responsibility. Several of the old leaders have again taken clubs and the new ones are starting in with enthusiasm which promises efficiency. Six past club members are acting as full club leaders and two other clubs are directed by committees of members since they lack leaders.

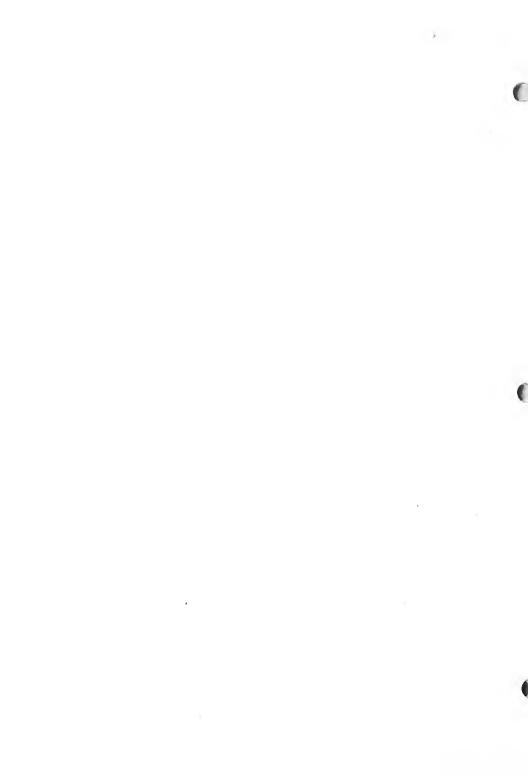
Special emphasis is placed this year on an improved quality of sewing. This has meant giving more fundamental instruction in the beginning in the use of patterns, plain stitches, machine stitching, etc., and is proving effective.

The usual social side of club work is again very attractive in the original club names, songs and cheers composed by the club members. Very interesting programs have been prepared by many leaders and it is sincerely hoped that if possible adults will visit the club meetings and show their interest in the work of the young people. By communicating with the county club leader information regarding the club in any town will be given.

The following towns are enrolled in this home economics club work for 1920: Bellingham, Braintree, Canton, Dedham, Foxbero, Franklin, Holbrook, Medfield, Medway, Needham, Norfolk, Randolph, Walpole and Weymouth.

Three of the six club members canning the most in the state came from Norfolk County, Mabel Thomas of Norwood with a record of over seven hundred jars; Elinor Menchin of Weymouth, also second county prize winner, with over four hundred jars; and Marion Curley of Cohasset, first county prize winner, with over three hundred jars.

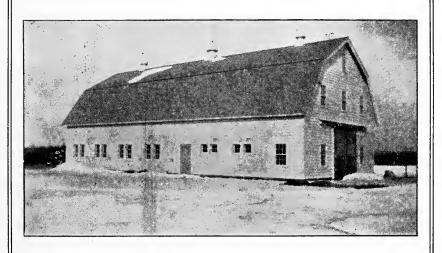
Dedham stands the highest in home economics club membership of one hundred and ten with seven organized clubs, two of which are assisted by Women's Clubs in the town.



Marachusette

MAR 2 4 1920

NORFOLK COUNTY AGRICULTURAL AND HOME MAKING BULLETIN



NEW BARN UNDER CONSTRUCTION AT THE AGRICULTURAL SCHOOL

PUBLISHED BY

THE

NORFOLK COUNTY AGRICULTURAL SCHOOL WALPOLE, MASSACHUSETTS.

VOL. III

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VOL. III

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No. 27

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TIMELY TOPICS

Mr. Herbert A. Rose, the new County Agricultural Agent, comes to us highly recommended. He is a young man of pleasing personality, a practical farmer, having been brought up on a New Hampshire farm where he worked with his father on a dairy farm until he entered college. After finishing his course at the New Hampshire State College at Durham, he worked as an assistant gardener until August, 1918, when he entered the service as an Instructor in the Signal Corps. He comes to us from Danvers, Massachusetts, where he has been employed since leaving the service as Farm Foreman and Manager of Judge Sears' farm. Here he raised eighteen acres of garden truck the past season, besides having the care of an apple orchard of eight hundred trees, the dairy and poultry plant.

Our front page shows the new dairy barn under construction. This barn is of word, plank frame construction, thirty-eight by eighty feet, and will have accommodations for twenty head of cattle and four horses, together with grain, storage, and harness rooms on the lower floor and open storage for hay, etc. in the loft. The laster finish is of cement plaster with cerent floors, cork brick undercaute at I horses, and modern steel equilibrate throughout. We expect it to be ready for occupancy in the early spling.

Make your plans now for the county exhibit to be held at the Agricultural School, September 15th and 16th. Let us make it the biggest county agricultural event ever held in Norfolk County. Look for premium lists, etc. in later issues of the Bulletin.

LIVING COSTS NOT CHARGEABLE TO FARMERS ALONE

In the "Weekly News Letter" of February 11th the new head of the Department of Agriculture, Mr. Edwin T. Meredith, in replying to questions regarding means of reducing the cost of living, is quoted as follows:

"The high cost of living is, of course, related to agriculture, but no more than to many other lines of activity.

"Useless employees must be given an opportunity to become producers upon the farm or in the factory.

"I am tempted to believe that the solution of the problem lies more in the hands of those interested in distribution and non-productive enterprises than in the hands of the farmers of the country.

"It is not a satisfactory condition for the farmer to receive reduced prices for his pork, wheat, hides, while the prices of his machinery, lumber, and shoes are raised.

"The farmer asks that the laborers in the mines, the factory and the mills, who are also real producers along with the farmers, make an effort comparable to his to see that there is just as little labor expense as possible in each article turned out by their hands, thereby helping the farmers of America, who in turn will help the laborer.

"Attention must be given by public-spirited citizens to the methods which tend to quicken and cheapen distribution of farm products, such as better terminal facilities, easier transfers, inland water transportation, back-hauling, and round-about routes eliminated.

"Every person, no matter in what walk of life he may be engaged, should have a sympathetic, helpful interest in agriculture."

AGRICULTURAL DEPARTMENT

SEED BUYING AND SEED TESTING

Seed quality is a factor so difficult to determine and so important to results that no opportunity to insure quality should be omitted. Quality may mean the viability of the seed—which means its ability to grow, or it may mean those qualities which govern type of the product after it is grown. The viability is easy to test, but that more important "type" is more difficult to learn about. Vegetable growers must depend largely upon the reliability of seedsmen in the purchase of seed. Seedsmen, in turn, deend upon the reliability of the men from whom they buy or the growers who glow for them or upon the inspectors who inspect for them. It some instances seed goes than the hands of several men. With the best of care, it is discoult to be sure of seed quality when the seed comes than the hands of more than one wholesaler. As a rule, no effort is made to trace quality beyond the sayso of the seeds an.

Who'e ale seed production involves production on such a scale that quality as to type can rarely be better than a good average. Seed is grown in competition for a certain price per pound. This fact makes it easy to understand why favey strains of seed should be high priced. They must be raised in comparatively all quantities under personal supervision of careful men.

Car we afford to use ordinary seed? One man has said to me, "I bought lettuch seed for \$1.00 per pound and it is the best I ever had." Another said, "I paid \$5.00 per pound for special error end and the seed I bought for \$2.00 was far better." And these have been facts. But they do not prove that it is not worth while to get special quality seed. The proposition is, to get it and be sure of it.

Some facts are worth consideration at this point. In 1918 seeds of Danvers Yellow Globe onions, Danvers Half Long carrot, Hollow Crown parship. and C osby's Egyptain beet were grown at the Market Garden Field Station. The stock was carefully selected. The onions came from Mr. Richard Gray's of Sunderland; the carrots from Durkee Brothers of Peabody; the parsnips from Henry Tipert of Danvers; the beets from Wyman Brothers of Arlington. In every instance the stock was selected and re-selected to type. A fair crop of seed was grown of each kind. In 1919 samples of this seed were sown side by side with samples of the same varieties from The results showed more vigorous seed purchased in the open market. growth, a better stand and higher quality in every instance, except one. In the case of onions, one variety gave a greater yiell than our own seed, but poorer market and keeping quality and the difference in yield was not sufficient to make up for the superior quality. We can say, without qualification that this home grown seed was far superior to any other that came from general stock.

The best vegetable growers nearly always grow some of their ow-seed. It will pay, try it.

During 1919 the writer has had reason to note the value of a germination test as a business proposition. A cash loss of not less than \$300.00 occurred on a fall crop of spinach because of a failure to determine the viability of the seed and consequently to know how thick to sow it. Talk this matter of a seed test over with your county agent. You can't afford not to.

February is the month when gardening operations begin for 1920. The careful gardener has had his hot-beds and cold frames protected from frost and has his sash ready to use by the 10th of the month.

The last week in February is a favorite time for planting cabbage. and tomato seed. Practice varies but the earliest plantings give opportunity to get strong stocky plants and find the grower prepared when plant setting time comes in spring.

Too many good descriptons of "how to make a hot-bed" etc., appear in nearly every farm paper to make it important to repeat here. Two or three suggestions may be of assistance. Fresh stable manure, about ½ straw is the best "heat." A supply should be at hand by the 10th of February for the early hot-beds. It should be even in composition. Frequently it is in just the right condition to put with the frames as it comes from the car. Otherwise, special piling to cause uniform heating, is important.

The test of the garden seeds should be made in the early hot-bed for early knowledge of the ability to grow will make possible a return of poor seeds and the location of a new supply early enough to prevent delay.

Prospects are that the farm labor situation will be more serious than ever this coming season. Plans of garden operations must be made with this in mind. A minimum of hand labor, an elimination of needless motions, bigger crops per acre with less acreage, will all count for the grower.

AGRICULTURAL NOTES

Inventory. It is a well recognized business principle that an inventory shall be taken at least once a year. This procedure is of especial value to the farmer who usually measures his prosperity by the amount of cash he has added to his bank account during the year and this sometimes is not the true state of affairs. Additional feed on hand, increase in the number and value of the young stock, poultry, etc. will often show a profit over the previous year's work that is much more satisfactory. If the inventory has not been taken no time should be lost. Suring work is coming along fast.

How about the rotation of crops? Have you decided what you will grow and the acreage for the coming year, having in mind the maintenance of soil fertility? A well planned scheme of rotation of crops is essential to the best results.

POULTRY NOTES

Professor Dryden of the Oregon Agricultural College, Corvallis, Oregon, makes the announcement that from four hundred thirty trap nested "Oregons" at the State Hospital twelve made records of over three hundred eggs per year. The highest of these three hundred "eggers" was a record of three hundred thirty. Will the three hundred egg flock be the next evolution of the poultry industry?

According to the December report of the Storrs Egg Laying Contest December was not a good month for egg production. This was due to the cold snap which came on and sent the thermometer down to ten degrees below zero. The leading pen for December was the Rhode Island Reds from Pinecrest Orchards, Groton, Massachusetts, which made a record of one hundred ninety seven eggs from ten pullets.

Taking the egg records of a good many thousand hens during the past ten years the following table is given as a standard of the number of eggs each hen ought to lay on the average during each month of the year:

Number of Eggs Hens Ought to Lay

November	5	May	20
December	7	June	1.8
January	9	July	17
February	12	August	15
March	18	September	13
April	19	October	7

Total for the year, one hundred sixty eggs.

The total of one hundred sixty is not exceedingly high. It is in fact, infrequently attained, and yet it is believed to be several dozen eggs more than the majority of hens lay.

The use of "lights" in the henhouse apparently increases the batchability of the eggs secured. At least, results of the test recently carried on at Cornell University show that the pen under "lights" gave a hatch of 56 per cent as contrasted with 51 per cent from the pen without lights. This was the result on hens. On pullets the pen with "lights" gave a 75 per cent hatch of satisfactory chicks as compared to 56 per cent from the pullets without lights. As yet, there is not sufficient data to justify one in concluding that it would be well to use artificial lighting on breeders and the present practice is to avoid the use of "lights" in the breeding pens. At this same test of the use of artificial illumination it was found that the morning lighting from three

in the morning until dawn gave the best results. It might be of interest to know that other pens in the test had "lights" from five A. M. to seven P. M.; from sunset to nine P. M.; and from three A. M. to nine P. M.

No matter what the regular laying ration may be, there is nothing better than whole corn for the evening feed in severely cold weather. Pullets, in particular, may safely be given all they will clean up.

"Poultry Feeding" is the name of the latest poultry extension bulletin put out by the State College. This can be secured by anyone who is interested enough to send for Extension Bulletin No. '33 to the Extension Service, Massachusetts Agricultural College, Amherst, Massachusetts. The following rations are recommended:

Mash	Grain
100 lbs. Eran	200 lbs. Cracked Corn
100 lbs. Middlings	200 lbs Wheat
100 lbs. Cernmeal	100 lbs. Barley (or Oats)
100 lbs. Gluten	
100 lbs. Ground Oats	
100 lbs. Meat Scrap	

Fattening Rations
2 parts Cornmeal
1 part Middlings
Buttermilk to make sloppy

or

3 pounds Cornmeal
2 pounds Ground Oats
1 pound Ground Barley
1/2 pound Meat Scrap
6 quarts Milk

The average annual feed consumption per bird at the Maine Experiment Station was found to be:

Grain and Mash	90.0	pounds
Oyster shell	4.0	"
Grit	2.0	4
Charcoat	2.4	46
Clover	10.0	"

See that you have plenty of brooder room for the early chicks. The coal burning brooder stoves are enjoying popularity and give satisfaction in the hands of most poultrymen. Most people succeed best with from two hundred to three hundred chicks under a stove.

In operating the incubators remember that a high temperature is injurious. It is better to regulate the machine to run a little low rather than take any chances of it going above 103 degrees. The best hatches are secured by keeping the temperature at about 102 for the first week, 102½ to 103 for the second week and at 103 degrees for the third week. In this connection it should also be remembered that one is liable to err on the side of not supplying enough moisture in the incubator cellar. A rapidly increasing air cell in the egg is an indication of lack of moisture. A good method of supplying moisture is to sprinkle the eggs with water registering 103 degrees (the same temperature as the eggs) and close the doors of the incubator immediately. When running off early hatches it is especially necessary to supply plenty of moisture as the air at this season is liable to be very dry.

In many instances we are asked to locate hatching eggs, baby chicks, etc. to would be purchasers. Will persons who have either stock, hatching eggs or chicks favor us with a statement as to the breed they keep, approximate number kept and whether or not hatching eggs, chicks or stock is offered for sale? Will parties having hatching eggs for sale from ducks, geese or turkeys also notify us to that effect? Kindly address all letters to the Poultry Department, Norfolk County Agricultural School, Walpole, Massachusetts.

HOME MAKING DEPARTMENT

KEEPING PHYSICALLY FIT

Good Health is not Only Our Privilege But Our Duty to Our Community

Joy in living and success in life are largely dependent upon the state of one's health. To keep physically fit observe the following rules:

- (A) See that your body has a sufficient supply of fresh air, pure water and wholesome food.
- (B) Get the waste matter out of the body each day.
- (C) Sleep, work, and play regularly.
- (D) Keep the mind in proper attitude.

(A) SEE THAT YOUR BODY GETS A SUFFICIENT SUPPLY OF FRESH AIR, PURE WATER AND WHOLESOME FOOD

Assure your body of plenty of fresh ai: Sleep out of doors or in a room which has windows opened at top and bottom. If there is a draft of cold air across the bed, make a screen by putting a sheet or blanket over chairs, or close the window down on a board that fits the entire opening.

Open doors and windows and air each used room at least once a day even in cold weather. Fuel will not be wasted because it takes less fuel to heat fresh moist air than it does to heat dry stale air. Keep the room temperature not more than 70 deg. and be certain that the air contains moisture. Keep the water pan of the furnace filled with water and a pan of water on each stove. Dry air causes nervousness and affects the skin.

Exercise or play out of doors each day so hard that lungs will expand and fill with fresh air. Breathe thru the nose regularly and deeply, sixteen to eighteen times a minute. By deep breathing more air is inhaled each time so that more oxygen is secured for the blood, and the lower parts of the lungs are used. It is important to breath thru the nose because the tiny hairs in the nose act as a screen and prevent dirt in the air from passing into the tube to the lungs; then too the air is warmed by the time it passes from nose to lungs. Mouth breathing often causes colds and colic.

Drink enough water each day: Water is necessary for the body to prevent irritation, to help dissolve and remove waste products and to replace the water which the body constantly loses thru the skin, lungs and kidneys. The habit of drinking water should be as regular as that of eating. Babies must have water between nursings. Adults need two quarts of water a day. A good plan is to drink a pint of pure water at about 60 deg. F. upon arising, before noon, before the evening meal and upon retiring. Water stimulates to some extent the flow of the digestive juices so that it is desirable to drink it before eating. Those persons who have the bad habit of not chewing their food sufficiently and of washing down unchewed food with water would do well not to drink water with their meals. If there is any doubt about the purity of the water, boil it before using it for drinking.

Eat wholesome foods: Study the needs of your body, and eat the foods your body requires to be kept in good condition and not just those your often perverted taste wants. Eat a varied diet which includes plenty of such regulating foods as coarse breads and cereals, fruits, vegetables, particularly the green ones, and milk, so that the body will have the varied mineral salts, bulk and protective substances it must have. Avoid large amounts of meat, sweets, soda-fountain drinks, fried feods, tea and coffee. Use little or no pepper, mustard, chili sauce or other condiments.

Eat at regular times, avoid eating between meals; do not eat more than enough to keep the body at its normal weight; do not eat rapidly, nor when excited or tired. Remember that an improperly nourished body cannot resist disease.

(B) GET THE WASTE MATTER OUT OF THE BODY EACH DAY

Lungs secrete waste matter from the blood. To remove this hold the head, shoulders and back so that the chest cavity is not cramped, and breathe deeply.

Skin is the means of removing from the adult 112 to 334 pints of waste matter daily. This waste, if left on the skin clogs the pores so that additional waste cannot be removed thru the pores of the skin and extra work is thus thrown upon the kidneys. Keeping the skin active by a daily bath will not only help in removing waste matter but will tend to prevent colds and tone up the whole system. "If you will be well use water in abundance, internally and externally." Special care must be taken to keep the hands clean since germs of tuberculosis, typhoid fever, and dysentery are often carried by soiled hands to the food. Wash the hands before eating, before cooking or touching food, after using the toilet or handkerchief, and after touching the sick. Each member of the family should have his own towel and wash cloth so that colds, sore throats, or skin troubles of one member of the family will not be given to others. If the body is not uniformly or warmly enough covered in the winter exposure to the co'd will prevent the skin frem removing its waste.

Widneys gather waste matter from the blood. This is passed into the bladder and should be got out of the body every few hours. Children should be taught to empty the bladder about every three hours and adults should not wait longer than four or six hours, except at night.

Intestines remove the waste after digestion and the body is not clean while the lower bowel holds waste material. Have your bowels move once or twice each day. Many poisons are absorbed into the system because people have been careless about this rule and disease is a result. Use foods and right living to prevent constipation instead of drugs.

Waster atter should not be left on teeth to cause decay. Decayed teeth produce poisons which are the cause of many disorders. Scrub the teeth thoroly not less than two times a day and visit a dentist twice a year to have the teeth inspected and cleaned thoroly if necessary.

(C) SLEEP, WORK, AND PLAY REGULARLY

The habit of working earnestly at something that is really worth while for at least eight hours each day helps to keep the nerves in good condition, and produces a happier, healthier, frame of mind. If possible,

part of this work should be out of doors. Gardening is an excellent kind of work to supplement a woman's housework. Many women who hire their washing and scrubbing done but do their sewing, which is rervous strain, would be healthier if they hired their sewing done and did part of the harder physical work that develops muscles and organs that need to be strengthened. The woman however who works too long without rest and who does hard physical labor past the point where she is tired out is definitely weakening her constitution and shortening her life. Installing water systems and other labor-saving devices will in many instances assure such women time for necessary rest.

Work must be preceded by sufficient sleep and followed by some sort of recreation or rest to be of greatest help. Every busy woman will improve her health, prolong her life and be a better mother and companion if she will lie down in a darkened room and relax completely for a short time Much of our nervousness and lack of resistance to disease is due to lack of sleep. Play is not a luxury but a necessity for our best Play or exercise should use those muscles and nerves which are not used in work so that all of the muscles and nerves of the body will be developed, but not overworked. An adult or school child who sits all day should take a brisk walk or play active games out of doors to stimulate circulation and stir up the liver, while a person who does physical work out of doors should play checkers or other games that work their minds and allow tired muscles to rest. It would be well if the old neighborhood parties where young and old met together to play games, sing, dance, put on amateur theatricals, coast, or skate, could be revived. One gets much more pleasure, physical good and social development from such amusements into which one enters actively than from such ar amusement as go-Seeing the "movies" very often is a dangerous habit. ing to the movies. It is a strain upon the eyes and usually over stimulates the nerves. Most houses in which moving pictures are shown need to be ventilated and ofttimes the seats are so uncomfortable that one assumes an incorrect posture while sitting in them. Babies and young children should never be taken.

(D) KEEP MIND IN PROPER ATTITUDE

The mind has a decided effect upon the health of the body. Anger, worry, envy, jealousy, or resentment may make one more tired than a hard day's work, while on the other hand, "a merry heart doeth good like a medicine." If conditions that cannot be changed are accepted cheerfully, if more thought is spent upon doing semething for others than upon one's own troubles, if one lives each day as it comes and finds something in it to laugh at, they will be much healthier and happier.

(Contributed by the Agricultural Extension Service of the University of Missouri.)

DO YOU-

Use a high stool in your kitchen? You can use it for a great part of your work, and if it is the right height for your working surfaces you will find you can work as quickly and more comfortably.

Have the working surfaces the right height for you? If tables or cabinets are too high it is easy to cut the legs off to the right length.

If too low, raise having blocks of wood fastened by metal strips or place legs in blocks of wood with a socket in which the table leg sets securely.

Know that your kitchen sink, table, and stove are arranged so closely together that you are avoiding all waste steps in preparing a meal and doing dishes?

Realize how many steps you save by the u e of a wheeled serving tray or a small table or stand on castors or wheels to carry things from the kitchen to the dining room?

Use a hose to carry your wash water? If you have a pump, use a funnel and fasten on the hose with a wire. Try to plan some way to connect your wash tubs with the drain to avoid all the back breaking work of emptying the tubs.

Use a spatula or palette knife when cooking? It will remove all the mixture from the bowl with little work.

Use a-

Double boiler?
Large size egg beater?
Measuring cup?
Bread mixture?
Fireless cooker?
Washing machine?

NORFOLK COUNTY RECIPES

Try Them and Pass Them Along Swiss Steak

Buy a cheap cut of beef from the chuck or round. Cut 1½ inches to 2 inches in thickness. Hackle meat with a saucer or something that is not too sharp so that it won't cut through the meat. Sprinkle with flour and work it in as you hackle it. Work in as much as you can on one side, then turn and do the same on the other side. Place in a hot pan which has a small amount of fat. Cook about five minutes, first on one side, then on the other. Place in a covered roaster, cover with boiling water and cook for an hour or more. Serve with brown gravy. This is very fine if carrots, potatoes and onions are added white baking.

MRS. O. L. SCHUBERT, Plainville.

Soft Gingerbread

½ c. butter substitute

2 t. soda dissolved in 1 c. boiling water

 $\frac{1}{2}$ c. sugar 1 c. molasses

2½ c. flour

1 t. cinnanon, ginger and clove 1 or 2 well beaten eggs

stirred in before baking

A few raisins may be added if desired. Chocolate frosting improves it but it is good without it.

MRS. ARTHUR OWEN, Foxboro.

Dark Chocolate Cake

1 c. sugar

1 t. soda dissolved in

½ c. melted shortening

½ c. hot water

11/2 T. cocoa

13/4 c. flour

16 c sour milk

Bake in a moderate oven. Frost with a marshmallow cocoanut frosting.

MRS. E. E. COPELAND, South Bellingham.

Graham Bread

2 cups Granam flour 1 t. salt

1 c. white flour $\frac{1}{3}$ c. molasses 1 t. soda dissolved in $\frac{1}{2}$ c. sugar

1 c. sour milk 1 t. baking powder

If mixture is not moist, add a small amount of milk. Bake in a loaf about 45 minutes.

MRS. A. E. BARNES, South Weymouth.

Surprise Sponge Cake

Separate 3 eggs. Add $\frac{1}{2}$ c. hot water to the yolks and beat minutes. Add the stiffly beaten whites to this mixture and beat. Add $\frac{1}{2}$ c. suga, and beat. Sift one teaspoon of baking powder with 2 cups flour and add to the above mixture. Flavor. Bake in a large sheet.

MRS. E. E. COPELAND, South Bellingham.

Orange Surprise

Unbeaten whites of 3 or 4 eggs

Juice of 2 lemons

Rind of 1½ dozen oranges

Rind of 1½ lemon

1 pint of water

2 cups suga:

Place the above ingredients in an ice cream freezer and freeze. The mixture expands so that this recipe will serve ten people. Strawberries, raspberries, pineapple and peaches in their season make an equally delicious dessert.

MRS, E. T. COBB, Walpole.

ITEMS OF INTEREST

Are you in the habit of destroying mutton fat because of its strong flavor? Clarify it in the following manner and you will have a good flavored and usable fat: To 1 lb. of mutton fat add 1 pint of water, 1 t. vinegar, and 1 clove. Boil for one hour. Allow the fat to harden in a cake on top. Pour off the water and heat the fat gently to drive off the moisture. This fat may be made softer and of better consistency for cooking purposes by melting the mut ton fat and combining three parts of it with one part of cotton seed or corn oil. Stir the fat occasionally when the mixture is cooling.

Groups of ten women in Holbrook and Randloph are learning to make and trim their spring hats. These groups are meeting once a week for four weeks from 1.30 until 5:00. Under the supervision of Miss Caulfield of Woburn they are learning the possibility of making a hat for ½ or ½ the price which they would pay at the store and the knack in overcoming that home made look.

The State Board of Health has assembled 50 dental slides which they are glad to loan free of charge with their lantern to towns that are trying to interest their school children in the need for care and treatment of the teeth. These slides are to be used this coming month in Braintree and Holbrook. Other towns have the same privilege of availing themselves of this opportunity.

New clothing efficiency classes were started in February in the following eight towns: Cohasset. Stoughton, Milton, South Weymouth, Ponkapoag, Braintree, Westwood, and Dover. Three of these classes are being taught by the Home Demonstration Agent, three by the city Home Demonstration Agent who is doing party time county work and two by a paid assistant. In each of these groups women have been chosen who will serve as local leaders in this work carrying on the information to other women in the town.

Although the members of the Randolph Clothing Efficiency Group completed their series of twelve lessons in clothing efficiency only a short time ago, they have already reported that they have completely taught eight u ore women in their town.

Try these two good suggestions which a western Home Demonstration Agent has contributed:

"The less tender cuts of beef will be found to be more tender if you will brush them over with a solution of 1 tablespoonful of vinegar and 2 tablespoonsful of oil and allowed to stand for one half hour before cooking."

"Boiled eggs can be removed from the shell more easily if a little salt is added to the water while they are boiling."

Thanks to the Home Economics Committee of the Braintree Grango, seventy-five children who remain for lunch at the Noah Torrey School are being served daily with a cup of cocoa. Members from the Grange volunteer their time each day to go to the school, prepare the cocoa, and assist with the serving. What better community service could an organization render than to serve a cup of not cocoa to growing children who are obliged to eat a cold lunch when the thermometer registers 10 below zero?

An interesting experiment and one worth watching is being tried in the Walpole Schools under the supervision of the School Committee. To supplement the work which the school nurse is doing, a nutrition nurse has been appointed to overcome the malnutrition which always exists among a large portion of school children. Every pupil in the Walpole Schools has been weighed and measured and from these figures those under weight for their height are being singled out for further attention. Sectional conferences for the mothers of the children who are under weight have been called and recommendations made by the nutrition nurse for carrying out a treatment of diet and rest for the children which will bring them up to normal weight and an improved physical condition. Results of this experiment will be reported in a later issue of this bulletin.

JUNIOR EXTENSION DEPARTMENT

DO THE PRESENT AND FUTURE HOMEMAKERS WORK TOGETHER FOR THE COMMUNITY?

This item appeared recently in a local paper: "The home economics club girls served refreshments during the social hour of the Woman's Club meeting. They made a very attractive appearance in their white caps and aprons with the four leaf clover emblem."

Have you a boys' and girls' club in your town? Do you know what it is doing and are you assisting in its progres: in any way? Is the club of value to the community as well as the members?

There is no question as to the advantages to the members of the clubs themselves from the standpoint of homemaking training, pride of ownership and leader hip among their companions. There is also however, a definite service which this organized group of young people can offer their parents and the community. This may take different forms, but in almost every town there is at least one opportunity for help by the club.

Probably the place where the home economics clubs help the most is in the representation and serving of simple refreshments at meetings of local organizations. It may be at Grange or church suppers Parent Teachers' meetings, social meetings of women's clubs, or similar occasions, but the members are trained and willing.

If a warm school bunch is served in the schools, the home economics club is the logical group to assist in the preparation and serving. This will give them credit in their club work as well as assisting the teacher or worker in charge.

In a time of need, many of the older club girls are fitted to act as mothers' helpers. They are trained in simple home duties and can usually mend and darn, so saving work and steps for the busy mother.

Among their own school friends there is a splendid chance for the girls to demonstrate the practices of simple, economical and suitable dressing which they are target in the clubs. It will take a great burden from parents' minds when it becomes the style for the school girls to wear suitable clothing.

Teachers can co-operate with club leaders by correlating English or mathematical problems to stories, demonstrations and records required by the clubs. In one town the English department in a high school is giving credit for original composition work by which club members are writing up a demonstration in bread making in the form of a little play. In the grades, stories on subjects such as "My work in the Garden Club." "The Pun of Raising a Pig," or "How I Helped to Keep House," might be more timely and appeal to the child more than a "Day of Accidents," "My First Visit to the Dentist," etc.

Many more examples of service that can be given might be cited, but are unnecessary. The question remains, are you making use of the organized boys and girls in your community who are willing and trained for service, and in return are you showing an interest in their aims and achievements?

SPRING FIELD DAY SET FOR MARCH 27TH

Success Club Members will meet at Walpole for pre-season Round-up.

Adults Welcome

March 27th is the date set for the spring round-up of 1919 Success Ciub delegates. One hundred boys and girls from all over the County will attend the Field Day. Reports and honors for 1919 will be heard and discussed. Plans for 1920 will be worked out according to the club motto "To Make the Best Better."

Excitement usually starts at 10.00 A. M. and runs until 4.30. Intere ted adults are always welcome at these Field Days. Remember the time, place and event. March 27th at the Agricultural School, Walpole, Spring Field Day of County Ciub Member delegates.

ITEMS

Weymouth has six home economics clubs with six past club members now first year in high school, acting as leaders. These are headed up by the local supervisor, Miss Brassill. This is a new experiment and it will depend on Weymouth to prove it a success. Judging from reports of the active part members are taking in getting up simple demonstrations on care of clothing, removing stains and making bread, it looks very favorable

It is claimed that high school clubs are not often successful. Braintree under the leadership of the domest's science teacher. Miss Ruth Bennett, with one of the liveliest home economics clubs yet visited, is disproving this.

A group at Needham High with no adult leader, but a corresponding secretary and a chairman from the members chosen each time, is also out for a banner club.

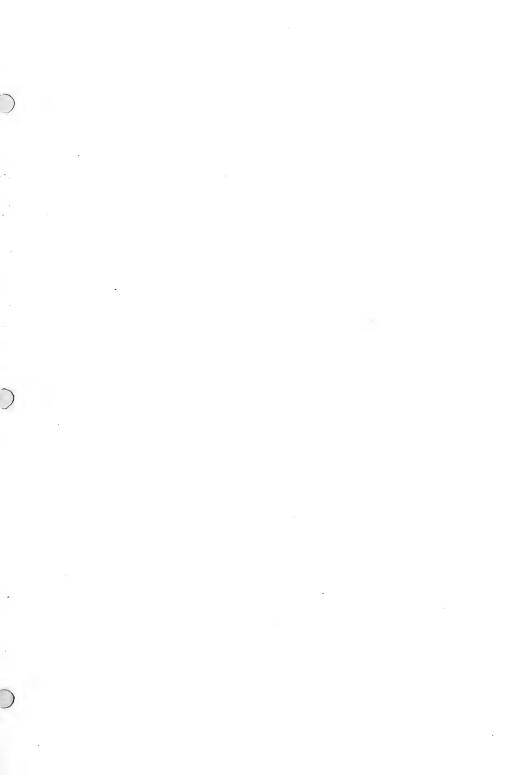
Medway High is bound to be a success with several members who have carried over from the banner club of last year's ninth grade. The leader is the domestic science teacher, Miss Priscilla Benson.

Why not have more another year?

When a home economics club can inspire girls to make up games for dishwashing, would it not be well for us all to join? We shall have to ask the "Cheerio Club" of Needham under the leadership of Miss Bertha Ainsworth who started the idea, how it is working out.

SCHEDULE OF FARMERS' MEETINGS

MASSACHUSETTS DEPAR	TO BE HELD UNDER THE AUSPICES OF ATMENT OF AGRICULTURE AND	TO BE HELD TWEETTE AUSPICES OF MASSACHUSETTS DEPARTMENT OF AGRICULTURE AND CO-OPERATING ORGANIZATIONS	NIZATIONS
Tuesday, March 23	Southern Essex	Hathorne (Danvers)	10.30 A. M.
		Essex County Agr'l School	2.00 P. M.
Wednesday, March 24	Northern Middlesex	Lowell, Memorial Hall	10.30 A. M.
			2.00 P. M.
Thursday, March 25	Central Middlesex	West Acton, Odd Fellows Hall	10.30 A. M.
			2.00 P. M.
Friday, March 26	Southern Middlesex	Framingham, Central Labor	10.30 A. M.
	and Norfolk	Union Hall	2.00 P. M.
Tuesday, March 30	Northern Essex	Haverhill, Haverhill Boys' Club	10.30 A. M.
			2.00 P. M.
Wednesday, March 31	Central and	Worcester,	10.30 A. M.
	Southern Worcester	Horticultural Hall	2.00 P. M.
Thursday, April 1	Northern Worcester	Gardner, Town Hall	10.30 A. M.
			1.30 P. M.
Tuesday, April 6	Franklin	Greenfield	2.00 P. M.
			7.30 P. M.
Wednesday, April 7	Hampden	Springfield, Auditorium	10.30 A. M.
		of Municipal Building	2.00 P. M.
Thursday, April 8	Hampshire	Northampton, Odd Fellows Hall	10.30 A.
			2.00 P. M.
Friday, April 9	Berkshire	Pittsfield, Grange Hall	10.30 A. M.
			2.00 P. M.
		Y. M. C. A. Hall	7.30 P. M.

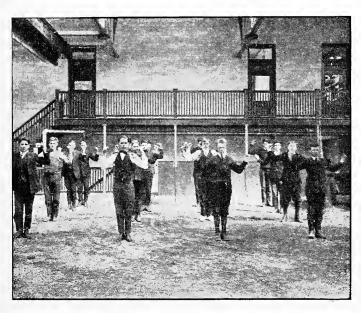




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APR 1 6 1920

NORFOLK COUNTY AGRICULTURA College AND HOME MAKING BULLETIN



CLASS IN PHYSICAL TRAINING AT THE AGRICULTURAL SCHOOL

PUBLISHED BY

THE

NORFOLK COUNTY AGRICULTURAL SCHOOL WALPOLE, MASSACHUSETTS.

VOL. III

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No. 28

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FARM BUREAU DEPARTMENT

HERBERT A. ROSE	OUNTY	AGRICUL	TURAL	AGENT
STELLA S. SIMONDS	HOME D	EMONST	RATION	AGENT
JOHN T. DIZERBO	OYS' AN	D GIRLS'	CLUB I	EADER
EUNICE H. HOMERASST. BO	DYS' AN	D GIRLS'	CLUB I	EADER

TIMELY TOPICS

In the fall of 1917 the Board of Trustees decided that a course in physical training would be very beneficial to the students at the Agricultural School and engaged Prof. Hermann of Boston, a well known physical director, to visit the School two afternoons each month and give the boys the benefit of his experience.

This work was continued during the next winter, 1918-1919, under the same direction. The benefits of the work having been so very apparent the management decided that on the

opening of the School in October, 1919, a set time should be given in the program for physical exercises. Each school day from 11.45 to 12.00 under the able direction of Mr. Campbell, one of the Instructors, the boys are given such exercises and the results are very noticeable in their erect carriage and general bearing. Our cover illustration this month shows a class exercise. Such work cannot but tend to better development since alertness and precision are the dominant key notes.

The Committee on Counties from the Massachusetts Legislature, James F. Bagshaw of Fall River, Chairman, visited the School on March 18th. This Committee is making a tour of visits to county institutions within the Commonwealth. Members of the Committee from Norfolk County are Senator Frank G. Allen of Norwood and Representative George R. Ellis of Foxboro.

At Stoughton Grange Monday evening, March 22nd, two boys from the Senior class, Leon Regan and Nelson Pratt, gave a very interesting talk on gardening, illustrated with stereopticon views. They were accompanied by two of the Instructors, James Salter and Roy T. Argood who, later in the evening, answered questions. Mr. Regan, at the request of the Lecturer of the Grange, explained the different breeds of poultry, the selection of breeding stock and the feeds and feeding of young chicks.

The Norfolk County Farm Bureau Agents are at your service but how can they help you solve your problems unless you in turn bring your problems to them?

The Farm Bureau Department, cooperating with the Market Gardening Department, is preparing to test samples of seed sent to them during the next few weeks. The increased cost of labor, fertilizer, etc. proves the fact that only the best seed should be planted. Address packages and letters to the County Agricultural Agent, Norfolk County Agricultural School, Walpole, Massachusetts.

Roadside markets should be developed to the limit by the fruit growers for it is an ideal way of selling. In planting for roadside trade it is very necessary to have those varieties that will furnish a steady supply in order to hold the trade week after week

Are you saving September 15th and 16th for the Norfolk County Agricultural Fair at Walpole? There will be something of interest to every member of the family. Vegetable displays and competition will for a starter; boys and girls, men and women, granges, small scale and large scale farmers all have a chance. Farmers will find a real display of tools, machines and barn Household labor saving equipment. devices always interest women. one is too old to play one kind of a game or another and there will be variety enough for all. All kinds of special up-to-the-minute exhibits. demonstrations and contests will be worked in within the forty-eight It isn't too early for you to hours. start getting ready now. Watch for later announcements.

Our new County Agricultural Agent is fast getting acquainted with the people of the County and their different problems. Granges have been visited during the past month and on March 10th a conference was held with County Agent Leader S. R. Parker of Amherst at which time the work for the coming year was partially outlined.

When making out the seed list for your home garden be sure to add a small amount of New Zealand spinach. A short row will provide greens throughout the hot summer months when most of the common varieties are tough and stringy.

Have you any poultry problems? If we can be of assistance please write or phone to the Agricultural School and we will gladly sieze the opportunity to give you aid in your poultry problems. Why not take advantage of our experience?

Garden supervisors are scarce. If you know of a good one engage him now. If you want one and can't locate anyone who would be satisfactory perhaps we can help you.

AGRICULTURAL DEPARTMENT

WORK OF MICE AND RABBITS

Mice and rabbits have been doing considerable damage to the bark of our fruit trees during this winter of deep snows. Where the injury is slight and not extending around the entire trunk the wound will usually heal but can be helped by the application of grafting wax prepared by melting together the following ingredients: 1 pound tallow, 2 pounds

beeswax and 4 pounds rosin. If these materials are not at hand common tree tanglefoot can be substituted quite sucressfully. When the wound extends around the trunk, making a complete girdle, the proposition is a more serious one and the tree can only be saved by bridge grafting. The details of bridge grafting are shown in the figure below.

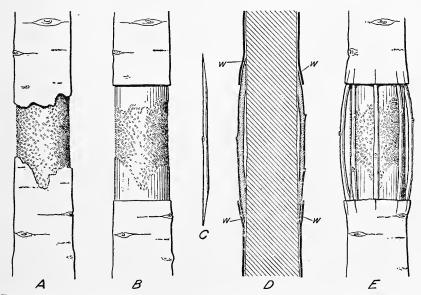


Fig. 3.—Details of bridge grafting: A, The trunk of a tree girdled by mice; B, the wound cleansed and the bark along the margins trimmed back to healthy, growing tissue; C, a scion with beveled ends ready for insertion; D, longitudinal section of the trunk with scions in place, showing their insertion under the bark of the trunk (w); E, scions in place ready for waxing.

The scions which form the bridge should be selected from wood of the previous season's growth. Either branches which grew the previous season or suckers that are only a year old may be used. It is important that the scions should be a little longer than the space that is to be bridged as the middle portion of the scion should arch slightly over the central part of the wound (see

Figure D). The entire wound should be covered with grafting wax or tanglefoot and, if near enough to the ground, should be banked with earth.

If you find your trees badly girdled by the mice and rabbits call up your County Agricultural Agent, Walpole 268, or write and he will do all in his power to help you. This is no time to hesitate. Make use of the opportunities at hand.

TREAT YOUR SEED POTATOES

It is time now to make plans for treating seed potatoes. The corrosive sublimate treatment is best because it controls both scab and rhizoctonia on the tubers.

Rhizoctonia does much damage and is largely responsible for the uneven stands in many potato fields. On the tuber it has the appearance of small pieces of black dirt or muck which can easily be scraped off with the fingers. It does not harm the tubers but when such potatoes are planted it often kills the young sprouts. New sprouts start below and the plant may get through the ground, but it is stunted as compared with normal plants.

This disease is also known as the "little potato" disease because diseased plants may produce many small tubers. Small potatoes may also appear on the stem above the ground. Directions for treatment follow:

Formulas

Corrosive sublimate

(mecuric chlorid)......4 ounces Water30 gallons Soak the uncut potatoes 30 minutes

A small volume of hot water should be employed to dissolve the corrosive sublimate, because it goes into solution very slowly in cold water. The solution must be prepared and used in wood, enamel, or concrete It corrodes metal, using containers. up the active principle of the solu-It is not injurious to the hands, but is a deadly poison when taken internally by man or animals. Treated potatoes are unfit for domestic use or feeding. The solution grows weaker rapidly from use, even to the extent of losing as much as one-fourth of its strength during a single use. The loss is greater when sacks instead of crates are employed for dipping and is greater in treating dirty potatoes than clean ones. It is therefore advisable to add 1 ounce of dissolved corrosive sublimate to each barrel, together with enough water to bring the solution up to the original volume, after each batch of potatoes has been treated. When this has been done four times, use twice; then throw away the old solution and prepare a new one

This solution does not corrode metal and is not a dangerous poison. Potatoes treated with it may be baked or boiled and eaten with per-The diluted fect safety. solution does not lose its strength on standing, as is frequently stated; on the contrary, it grows stronger on evaporation, the water evaporating faster than the formaldehyde. It may safely be kept for a few days or weeks, if This solution is not so generally effective as corrosive sublimate but is much cheaper.

Method of Treatment

To treat large quantities of potatoes, set several barrels on a slightly elevated platform, as shown in the illustration on the title page. plug in a hole near the bottom of each barrel, fill the barrel with potatoes, cover with the solution, let stand for 30 minutes, draw off the solution, and pour into another barrel. crease the number of barrels in proportion to the quantity of potatoes to be treated. Another method is to use a large wooden vat or trough, into which the potatoes in sacks or crates are lowered by a rope and pulley and later hauled out, drained, and dried on slatted racks.

Less Land, More Crops

It may not be amiss this spring for growers to consider carefully the importance of making every acre of land do its utmost. While this may mean spending \$150 per acre for manure and fertilizer, instead of \$75 to \$100, which may have been spent formally, the results in total production and in better quality as well as in labor saving will have outweighed the extra cost.

APRIL DAIRY RATION

The following ration is suggested for cows producing milk during the month of April:

100 pounds ground corn or cob meal

200 " groun loats

200 " bran

100 " cottonseed meal

200 " oil meal

This ration has a medium protein content and should be fed with good quality roughage.

Three pounds of the above for actual maintenance and an additional pound for each three pounds of milk produced is about the right proportion. During the first months of lactation period it might be well to limit the amount fed, one pound to every four pounds, with an increase as the period of lactation grows longer.

Have you tried putting a little stock molasses on the poor roughage that is sure to be found at this time of the year? The creatures appreciate the sweet taste and clean up what otherwise might be wasted

ORCHARD NOTES

The peach orchard should be care. fully examined this spring to see if you are fortunate enough to have some trees come through our severe winter with some live fruit buds by picking out the most likely looking buds and cutting across them, noting if the live green has turned to dead brown. If there are any alive they should be well worth saving this year, but if, like most of us, you find them gone, take this opportunity to severely head back the trees that have grown too tall, opening up the centers, removing most of the side branches, in fact doing everything you can to induce a heavy wood growth this coming season which means a big crop next year, weather permitting.

After a severe winter the best of care should be given to aid the trees in their come back rather than letting them shift for themselves as

is the tendency when there is no crop. To do this, spray thoroughly and at the right time, fertilize with some nitrogen bearing fertilizer, and above all, cultivate early and often.

It is very important in the control of the leaf curl to have the dormant spray of concentrated lime sulphur solution, at the strength of 1-8 where San Jose scale must also be controlled, or 1-15 for the curl alone, applied before there is the least swelling in the buds, for when the seal is broken the fungus can enter and no amount of after spraying will keep it down. The damage of the leaf curl is usually underestimated for with brown rot it is one of our most serious fungus diseases. and the annual loss to American peach growers due to the curl is said to be three million dollars

GRAFTING

Perhaps you have decided to do a little grafting in the old orchard this season. There are three essential points to be noted-First, the scion must have at least two good buds (by this we mean well matured buds); Second, the growing parts, cambium layers of both scion and stock, should be placed in close con-Third, moisture must be prevented from entering the wound made in performing the operation of For the latter a watergrafting. covering is used, generally proof This material may be procured from any of the large seed houses, or, if a large number of grafts are to be made, the operator may find it more economical to make his own supply.

Formulas for grafting wax Rosin—4 parts by weight Beeswax—2 parts by weight Tallow—1 part by weight

Melt together and pour into a pail of cold water. Grease the hands and pull the wax until it is nearly white.

> Rosin—4 to 5 parts Beeswax—1½ to 2 parts

Linseed oil—1 to 1½ parts
Tanglefoot may be used as a substitute and gives satisfactory results.

FLORICULTURE

In planning the garden for the year let us decide to grow a few of the annual flowering plants. They lend themselves to house decoration so nicely, and give so much satisfaction that whenever a small plot of land near the home is available some flowers should be found. In looking over the seed catalogues for 1920 we find a complete list of all of the old favorites, together with a number of new claimants for popular favor.

In making up the list always include a few packets of the novelties In most cases they are the offered. result of painstaking care and either in color, size, vigorous growth or attractive appearance, will repay the outlay many times. We will not attempt to present a long list but asters, snapdragons, verbe. as, poppies, scabiosa, mignonette, candytuft, elegans gypsophila salpiglossis, Drummond's lupins, sweet peas, phlox, etc. are always satisfactory.

Speaking of sweet peas, let us bear in mind this fact—that to attair. their highest perfection it is necessary that they be given liberal treatment, a well drained, deep, mellow loam in which has been incorporated some well decayed barnyard manure (about three bushels per one hurdred square feet should give good re-Open a trench four or five turns). inches deep, making the bottom even, scatter the seeds about one inch apart. cover to a depth of one inch. nicely up, thin to four or five inches With white seeded varieties it is advisable to cover with a soi which contains a large proportion of sand (one-half to three-fourths sand)

Provide brush which will be six feet high when placed between the plants along the low. Do this before the peas are over three inches high. The plants will climb up through the brush and with little attention will form an attractive habit of growth.

Keep all weeds down by frequent

stirring of the scil. About the time the plants are coming into bloom a light application of a good fertilizer which does not contain too much nit ogen (one analyzing 4% nitrogen. 8% phosphoric acid and 4% potash) will be of co side able assistance in the production of high class blooms. A mulching of stable manure between the rows to a depth of from three tofour inches will keep the soil and assist in conserving the soil moisture. It may be necessary to water the plants sometimes during their heavy production of bloom. so, be thorough and give the land a good soaking. Keep all flowers picked off because, if allowed to go to seed, production of high blooms will be seriously curtailed.

A NEED AND A CURE

Farms need clover. Clover needs lime. If soil is "sour" line it for clover.

STANDARD BUSHEL BOX NOT ADOPTED

The Committee on Mercantile Affairs has referred House Bill No. 1329 dealing with the standardization of the produce box, to the next General We feel very sorry that the progress which would be made by the passage of this bill is likely to be de-We feel sure that the committee did not clearly understand the purport of the bill. No damage was intended to anybody, and the clearing up of a matter which is very unsatisfactory at present, would be brought about if the bill had been passed. Wehope that all those interested in this will become thoroughly project familiar with it and be prepared to support it strongly another year.

The average price per head of milk cows in this country has increased from \$58.25, since January 1, 1915, to \$91.95, the average for 1919, or a gain of 58 per cent. in five years.

POULTRY NOTES

USE COAL BROODERS

Coal stove brooders have proved to be the most efficient brooding device to date. There are many makes on the market, most of which are satisfactory since they all work on the same principle but vary a little in the method of constructing the regulating device. One of these stoves will hover three hundred chicks which is all that should be raised in one flock. The stoves are very easy to care for and take very little time for keeping them in running order. To one who been in the habit of using kerosene hovers the coal stoves would be a guest - after welcome one visit. These coal burning brooder stoves have done more than any other one thing in removing the risks and hard work in connection with the rearing of poultry. The best practice is to start the stove a few days before it is needed and have it running so that the heat from the deflector feels comfortable when the hand is placed underneath. A guard of wire to keep the chicks from wandering away from the source of heat is put around the hover. This is preferably of one inch mesh wire and is kept in place for a day or two when it is increased in size and the chicks have the full run of the house. If possible, get the chicks out on bare ground when five days or a week old. Τf the weather is a little cool they can be let out the first day at noon. bout the only other feature one need watch is to be sure the chicks are under the hover at night. If a bunch of them get in the corner away from the source of heat they are almost certain to crowd together and be smothered to death. If they are taught to return to the brooder the first few nights they will rarely if ever give any trouble in this respect later

HATCH STANDARD BRED CHICKS

Standard bred chicks are more uniform in type and color; they produce uniform products of superior quality; they require no more room, care or feed than scrubs or mongrel stock and they mean more meat, more eggs and better price.

In brooding the chicks be careful about letting the brooder (whatever kind it may be) get too hot or too cold. In either event the chicks may develop bowel trouble which is mistaken by many to be white diarrhea.

Soft shelled eggs usually are common at this season of the year, due generally to a lack of shell forming material, i. e. oyster shell.

Feed oats more freely now. They are less fattening than corn, are frequently more economical, and are excellent both for breeders and for promoting egg production. When liberally fed they must be soaked or boiled thoroughly.

Buy a few good hatching eggs or day old chicks if you have not otherwise provided for the improvement of your flock this year. "No stream rises higher than its source," and if you are going to improve the quality of your stock or increase its productiveness you must bring in new and better blood.

Caution! Beware of the rats and other vermin. One rat can wipe out a flock of fifty chicks in one night.

Here is another! A rat will consume in one year at least one-half as much grain as a good hen. The hen turns the grain into eggs and meat. The rat turns it into more rats and ruin.

HOME MAKING DEPARTMENT

THE PARTNER AT HOME

Her Efficiency in Managing the Home Reacts in The Community and Nation

It is only when the woman in the home is accepted by her husband as a partner in his business that the right relationship can exist and the home established on the right foundation. Due credit is often not given to the woman of the home as a contributing factor to the family income. The nature of her position in the home which requires that she shall be the spender of the larger part of the family income often gives the false impression that she is a liability rather than an asset in the partnership.

The following article published in the Journal of Home Economics gives a very complete summary of the value and power of the woman in the home and community and may prove an inspiration to the woman who has been led to feel that the profession of home making is narrow in its scope:

The partner at home, through wisely directing her household, increases the family savings and serves the State, yet secures the comfort of her family, by contributing productive labor, by planning her use of time, by lessening the waste of material, by portioning the income. Savings is the household's financial service to the state. It safeguards the family and serves the nation.

Contributing Her Labor

Her household labor adds to the value of material. The work she does in cooking feed, in making and repairing clothing, in cleaning the house, is productive labor. The difference in value of the raw material and the finished product is part of her contribution to the family income.

Her earning power may be increased. She may fit herself for a definite task by a part time vocational course; make money from

poultry, eggs, butter, fruit, using the pareel post market; sell goods that she has canned; find other part time employment.

Her leisure may be invested in fuller life for the family—music, reading recreation; in service to the community making it a better place in which to live.

Planning Her Time

Due value is given to her time. She balances the time needed to save material against the worth of the material saved. She counts time as money, and saving time as saving money.

Her time is planned. She uses time to save time. Time spent in planning is saved in doing. Planning saves labor, saves materials, saves money. Better planning of their household work helped American women make products worth \$68,000,000 for the Red (ross in 1918.

Saving Materials

She provides for her family right food, suitable shelter, adequate clothing, reasonable comforts.

She carries over war thrift into peace times.

She enlists her children in the care of all materials.

She teaches them care of property, right use of public utilities.

She saves food material by thoughtful buying, by careful use.

She saves clothing by the stitch in time, by proper care.

She saves fuel and supplies by wise planning, by avoiding small wastes.

She salvages all household waste, making it available for other uses.

She asks from the community clean streets, clean air, clean water, that her carefulness be not discounted by community negligence.

Portioning the Income

She knows what the family income is.

She sets aside as savings a portion of all money received.

She makes a spending plan, deciding how much can go for food, for clothing, for house expenses, for recreation.

She makes a food budget, a clothing budget.

She keeps accounts to check her spending.

She makes a business of her buying. She knows her materials.

She plans her purchases and does not buy on impulse

She takes account of stock and makes a list of her needs.

She chooses a reliable dealer. She checks up measures and weights.

She reads the labels on package goods and compares their cost with those sold in bulk.

She considers quantity versus small amount.

She considers the advantage of Cash and Carry, or Self-Serving, stores in lessening the cost of goods.

She buys things when they are plenty, getting them for the least cost, and helping to keep prices down.

She knows that selfish demands raise the cost of living for all.

She gets full value for her money. She pays her bills promptly.

She watches the market lists in newspapers.

She asks that her community have Fair Price Lists.

She puts aside for future use extra money saved by good buying.

Serving the State

She is responsible for the wise management of 20,000,000 households.

Billions of dollars pass through her hands each year.

Her demands control American industry.

Her intelligence saves money for 20,000,000 families.

Her care directs the habits of 40,-000,000 children.

Her wise control of her household trains her children in thrift, contributes to community savings, gives her a share in her government.

NORFOLK COUNTY RECIPES

Used and Contributed by Our Readers

Flack Roll

3 lbs. flank of beef

2 T. flour

Salt and pepper

few drops onion juice

1 c. boiling water

Sprinkle the meat with onion juice, salt and pepper. Roll and tie. Roll in flour, sear well, add water and boil for 10 minutes. Put into the fireless cooker with a radiator under it and cook 3½ hours.

Weary Willie Cake

Put in mixing howl: 1 c. sugar, 1 c. flour, 1 t. cream tartar, ½ t. soda, ½ t. salt. In the measuring cup put: 1 T. butter substitute, 1 square chocolate and stir while melting. Add a little milk break in two eggs

and fill the cup with milk. Pour this into the first mixture and beat well. Flavor with vanilla. The chocolate may be omitted for a plain cake.

MRS. MILLARD RINES, Plainville.

Surprise Cookies

1 c. sugar

½ c. shortening

1 egg

½ c. milk

1 t. vanilla

1 t. soda

2 t. cream tarter

flour to make a dough sufficiently stiff to roll thin

Put a t. of filling on cookie and place another cookie on top. Press together and bake.

Filling for Cookies: 1 c. chopped

raisins, ½ c. sugar, ½ c. water, 1 T. flour. Cook in a double boiler until thick.

MRS. F. B. BROOKS, Holbrook.

Corn Starch Cake

½ c. butter substitute

1 c. sugar

½ c. sweet milk

½ c. corn starch

1 c. flour

½ t. cream tarter

¼ t. soda

whites of three eggs

flavoring

Follow general directions for making cake.

MRS. S. A. WESTON, Sharon.

Pineapple Pie Filling

1 pineapple chopped fine

2 c. sugar

2 T. flour

2 eggs beaten

1 c. water

If canned pineapple is used, pineapple juice may be used instead of water. Cover with meringue or bake in two crusts.

Maple Ice Cream

1% ats. milk

3 eggs

1/4 t. salt

2 T. flour

2 c. hot maple syrup

Make a custard of the flour, eggs and milk, add the hot maple syrup. Chill and freeze.

MRS. F. B. BROOKS, Holbrook.

HOUSEHOLD THRIFT IN THE USE OF FUEL

Avoid use of large gas burner where a small one will do.

Reduce flame when boiling point is reached.

Avoid heating oven two or three times where once would be enough if work was planned

Prevent cooking utensils and food from burning by care in use of gas and amount of liquid used.

Fireless cookers are one of the

best fuel savers, especially for food requiring long slow cooking.

Economy in use of matches is small yet an important matter.

Turn off lights ir any room not in

Economy in use of coal through knowledge of construction of range and furnace, checking of drafts, correct size of coal.

Use shovel to add coal rather than pouring it on when more than is needed is generally used.

Items of Interest

The Clothing Information Bureau which was maintained by the War Service Committee of the Women's City Club of Boston at their "Cottage on the Common" has been reestablished at No. 9 Hamilton Place, Boston.

The Bureau is a center of information and service for those who may desire help on the problems of textiles and clothing. There will be opportunities to consult specialists on the clothing budget, remodelling and renovating; to see samples illustrating points on heathful clothes, and to test cloth before buying, etc. A speaker's bureau and travelling exhibit will be maintained for the use of clubs and schools desiring such assistance.

The Clothing Information Bureau is at your service between the hours of 9.00 A. M. and 5.00 P. M. and on Saturdays between 9.00 A. M. and 1.00 P. M. with Miss Ada F. Blanchard in charge.

The Children's Bureau at Washington has a loan moving picture film entitled "Our Children" which they will loan free of charge to any committee willing to pay the express on the film to and from Washington. The film shows in an interesting way the possibilities and value of public health work in a community and is a medium through which the public may be interested in health work which the town is doing.

The committee in charge of the Health Center in Walpole has had the use of this film for one week having it shown four times in different parts of the town. The privilege of having this film can be extended to any town by communicating with the Home Demonstration Agent.

Uncertain travelling conditions did not keep women from seven towns in Norfolk County from attending an all day clothing meeting with Mrs. Reed in Cohasset on March 3rd. definite results were accomplished at this meeting. The Cohasset clothing group received their scheduled lesson on lining up the cambric waist under Reed's supervision and the clothing leaders from six other towns in the county had an opportunity to practice lining up at least two cambric waists for Mrs. Reed's approval. The lesson was extremely valuable for the women who are teaching this work in their communities. We can give no better proof of the interest which the women are showing in the work than by c'ting the fact that two women from Bellingham, the most western town in Norfolk County, attended this all day clothing meeting in Cohasset which is the most eastern town in the county. count of discontinued trolley service.

these women left home at 6.30 in the morning, drove six miles in a sleigh and travelled 70 miles by train, returning home by the same methods in the evening.

The Warm School Lunch recently started in the Bellingham Center Schools is one of the best examples of cooperation that we have in warm lunch organizations in the county. After calling on the principal of the school and interesting her in serving a cup of cocoa to the 50 children who stay for lunch, the Home Demonstration Agent interested one of the local women who contributed her three burner oil stove for the preparation of the cocoa. The lecturer of the Grange was acquainted with the plan and agreed to have the Grange make a small appropriation for the necessary kettles and equipment might be needed. It was not hard to interest the members of the girls' home economics club in the warm lunch for in this way they saw an opportunity to demonstrate before their school mates the results of their training in the club. This example of community cooperation demonstrates not only what may be accomplished in a town along this line but shows the possibility of promoting unlimited community projects.

HOME PRESERVED EGGS ARE AN ECONOMY

Your Yearly Supply of Eggs Should Be Purchased During April and May

Many housewives who claimed last spring that they could not afford to pay 55c a dozen for eggs in quantity for preserving have been paying as high as \$1.15 a dozen for eggs and have averaged to pay 85c a dozen throughout the year. Eggs are cheaper and more plentiful during April and May than at any other season. It is good household management to purchase the yearly supply of eggs at this time and preserve them at home in water glass.

Secure clean fresh and infertile eggs if possible. Stone jars or galvanized iron cans make the most

cortainers. If water satisfactory glass is used it should be diluted in water which has been boiled and allowed to cool. The exact proportion cannot be definitely stated as the water glass varies in density. However, the general proportion is one part of water glass to nine parts of The mixture should be sufficiently heavy to allow the egg to pass leisurely down through Place the eggs in this soluliquid. tion taking care that none are dirty or cracked. Keep an inch of solution over the eggs. Cover the jars to prevent evaporation.

JUNIOR EXTENSION DEPARTMENT

PLAN NOW FOR HOME ECONOMICS CLUB EXHIBITS

Seventeen towns should begin this month to plan for the final home economics club exhibit which will come in early May. At this time the results of the contests will be shown to the public and the products judged by the County Leader. There are several points to keep in mind in making these plans.

1st. The exhibit should be combined, if possible, with a public meeting of some organization such as a Grange, woman's club or parentteachers meeting. This will give the parents and friends a better chance to attend and see the work than a school exhibit. If this is not possible the smaller exhibit at the school may be used.

2nd. An interesting program should be planned and given by the children at the exhibit to give added interest and information concerning what has been done. This may take the form of talks or stories by club members on their achievements, or demonstrations by individuals or teams on subjects related to projects.

3rd. All possible publicity should be given the exhibits by leaders, parents children and school authorities and the public cordially invited.

4th. Definite instructions will be sent leaders and members before May 1st as to the material required but in general the exhibits will include loaves of bread, garments, darned stockings, patches, records and stories,

It will be well for leaders even now to be communicating with existing organizations interested in this work to make plans for cooperating. If, on the other hand, any organization would like to invite the club in their town to join one of their meetings by such an exhibit and is in doubt as to how to reach the club, a note to the County Club Leader will give the leader's name and address at once.

CLUB MEMBERS AT THE GRANGE A Night of Interest

Granges don't take advantage of junior work often enough. Recently at one Grange meeting I, and I think everyone else, nad a fine time with club work the subject of the meeting.

Instead of the usual idea of leaders telling what ought to be done and asking others to help, an entirely different method was used in presenting the subject. Club members themselves told what they had done, are doing, and intend to do. They told of the obstacles met, the difficulties overcome, successes and failures—and it was all first hand information taken from experience.

Most club members certainly can present their own side of club work in an interesting manner. Garden club members can tell the why and how of many garden processes. Canning club members know canning

from a to z, while bread club members can prove to you that your very best loaf of bread still leaves something to be desired. And the same thing holds true with our garment and livestock members. Each one knows his part.

Granges, women's clubs and like organizations do not use their young people enough. They can get more interest, have better programs, and do a lot more good by giving the juniors a chance to be heard now and then. The county leaders may be able to help you in working out special junior programs. Try one in your organization

Miss Norris, Assistant State Leader, spent three days in the County the week of March 22nd. She visited club meetings where demonstrations were given on bread making, garment making, removing spots and stains, and packing bags for week-end trips.

NORFOLK COUNTY CLUB MEMBERS AGAIN ON PROGRAM

Helen Findlen and Adrian Barnes tell of Club Experiences in Boston, March 6th

Stormy weather fails to prevent county attendance at anceting of Mass.

Junior Extension Leader's Association.

The worst storm of the winter, so Saturday, March 6th was called and all those who happened to be in Boston and saw the people taken off their feet and swept along could well believe it. In spite of it, the Mass. Junior Extension Leader's Association held its annual meeting in Perkins Hall with an attendance of about fifty who braved the storm.

The program was shortened because several of the speakers were unable to get there. The biggest disappointment was that the mock club meeting scheduled by the Minute Girls of Lexington had to be omitted and they had prepared a splendid treat. Nevertheless those who attended felt repaid to have made the effort to come.

The County Club Leader recently attended a conference in New York when club leaders from the ten northeastern states discussed the work as it is developing. Every state reported progress and growing interest. Norfolk County boys and girls helped Massachusetts make that report.

February and March were hard months for visiting club meetings. Now that we have bare ground again things are better and meetings booming.

The Braintree Home Economics Club was requested to give its original bread making demonstration before the Woman's Club of that town. Two Norfolk County club members, Helen Findlen of Dedham, and Adrian Barnes of South Weymouth, appeared as scheduled and gave interesting talks. Helen told of her experiences as a club member and leader, including camp week and Eastern States. She gave some good points on the influence of club work on the community.

Adrian spoke on his experiences in garden and poultry clubs, emphasizing the benefits financial and educational which he had gained from the work.

Several leaders and members were present from this county.

The following officers were elected for 1920: President, George D. Hearn, Holyoke; vice president, John T. Dizer, Walpole; secretary, George E. Farley, Massachusetts Agri. College. Directors: Alice C. Grady, Malden, Irene Wilcox, Chicopee; F. C. Kepp, Weymouth; Clinton Goodwin, Haverhill.

Many club members have their gardens planned, seed bought and tested, and fertilizer on hand.

Mr. Earle H. Nodine, Junior Extension Poultry Specialist, will be in Norfolk County the week beginning April 5th. Mr. Nodine will give many demonstrations before poultry clubs in addition to helping select the county poultry club winner for 1919.

Birthday parties and club meetings go well together according to the East Weymouth Home Economics Club which invited the North Weymouth girls to such an affair. The occasion was the birthday of three or four members in two days.

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MAY 1 2 1920 Agricultural

NORFOLK COUNTY AGRICULTURA COUNT



CLASS AT WORK UNDER INSTRUCTION IN THE ORCHARD ON THE SCHOOL FARM

PUBLISHED BY

THE

NORFOLK COUNTY AGRICULTURAL SCHOOL WALPOLE, MASSACHUSETTS.

VOL. III

MAY, 1920

No. 29



NORFOLK COUNTY AGRICULTURAL AND HOME MAKING BULLETIN

Entered as second class matter June 7, 1917, at the Post Office at Walpole, Mass., under the act of August 24, 1912.

VOL. III

MAY, 1920

No. 29

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TIMELY TOPICS

The cover illustration shows several steps in the pruning of a young apple tree. The class is under the instruction of Mr. Argood in the three year old orchard on the school farm. No. 1 shows the class examining the tree before pruning to determine which limbs should be removed. No. 2 shows a student taking out a large central limb to improve the shape of the tree and let in the light. In No. 3 all unnecessary limbs have been removed (notice the fruit spurs have been left on). No. 4. Finishing the job by heading back the leaders to an outside bud.

Mr. James Salter, who has been instructor in Market Gardening since October, 1918, resigned April 1st to accept the position of Agricultural Instructor in the North Attleboro High School. During his stay with us he won not only the respect and esteem of the management and his fellow instructors but the entire student body as well. We regret that he felt it advisable to sever his connection with the School and while we shall miss his genial presence and helpful suggestions we extend to him our best wishes for success in his new position.

COMPETITIVE DRILL

On Friday, April 9th, a Competitive Prize Drill occurred at the School to mark the finish of the year's work in Physical Training. Suitably engraved bronze buttons of the same design as the School pin were awarded as five prizes.

The daily drill has consisted of fifteen minutes of vigorous muscular activity so that the student would be in the best possible hygienic condition that is necessary in good mental application to class room work. This drill started with a race of a few laps around the arena between evenly chosen teams of the boys. developed endurance, created enthusiasm, and brought into play that competition which is always necessary to good work. Following the race a series of setting-up exercises were given for straightening the spine, strengthening the muscles of the whole body, enlarging the chest, and the coordination of mind and muscles by exercises requiring rapid thinking.

The boys have taken this work with fine spirit and the results were plainly shown in the Competitive Drill. The Judges for the Drill, Mr. K. E. Smullin and Mr. E. E. Brett of the Norwood Civic Gymnasium awarded the first prize button to Herman Douglas Smith; second, Nelson Pratt; third. Joseph Francis Roche, Jr.; fourth, Henry Egner; fifth, Leon Regan.

After the awards were given Mr. Smullin gave very favorable commendation on the grade of work done and spoke of the great benefits to be derived from the habit of performing regular physical exercises.

Mr. Frederick A. Hamply, who has been farm foreman for the past six months, resigned April 12th and the position has been filled by Mr. Charles F. Quimby of Cape Neddick, Maine. Mr. Quimby made a special study of agriculture at the Massachu-

setts Agricultural College, receiving the degree of Bachelor of Science in 1917. During the past year he has been assistant to Dr. A. W. Gorham, Superintendent of Fox Hill Farm, Westwood, Mass. Previous to coming to Fox Hill Farm he was employed as garden foreman and marketing agent on a market garden and dairy farm catering to the summer trade at York Beach, Maine.

Three seniors of the Norfolk County Agricultural School had the privelege of providing the program at Wrentham Grange on the evening of April The illustrated lecture on "Gardening" was begun by Mr. Egner, who explained the methods of preparing and planting the garden. Mr. Pratt then discussed the care of gardens and the best methods of combating the more common insects and diseases. "My four year's experience at the Norfolk County Agricultural School" was the subject of Mr. Regan's talk which followed. summing up the benefits derived from his experience at the School he said. "Then there's another thing that has been a great benefit, the instructors say so anyway, but I don't think much of it, and that is this public speaking business."

Some seventy-five members of Randolph Grange were present at their regular meeting, April when Henry Egner, a Senior, gave an interesting and instructive talk market gardening. illustrating with the stereopticon. He was accompanied by County Agent Herbert A. Rose and Director E. H. Gilbert. During the evening Mr. A. Boutelle of the Saltonstall Farm, Ponkapoag, spoke on "Spring Work on the Farm." Mr. Rose told of the damage done by mice and rabbits to fruit trees the past winter and explained the method of bridge grafting to save the trees. Readings, vocal and instrumental music were furnished by members of the Grange.

STUDENTS GIVE COSTUME PARTY

Parents and Friends Guests at Final Social of Year

On Friday evening, April 9th, a costume party and entertainment was given at the School. Parents and friends of the students were invited guests. The grand march, led by to the assembly hall where two Mr. and Mrs. Gilbert dressed in early farces were given by the students of colonial costumes, opened the eve- the school and the following program ning's program. Miss Mildred Lock-

hart, as a Red Cross nurse, and Mr. Campbell, in brilliant oriental garb. were awarded the prizes for best costumes. The march led the guests carried out:

THE PUBLIC WORRIER, A COMEDY IN ONE ACT

Scene—An office

CAST OF CHARACTERS

Godfrey Giblets, the Worrier Nelson Pratt				
Dr. Slicer, a physician Melvin Pagington				
Mr. Sooner, a lawyer Melvin Pagington				
Mr. Skipwell a cashier Herman Smith				
Mr. Leek an editor Henry Egner				
Mrs. Leek, his wife Leon Regan				
Henrietta Gimp, a maiden				
Henrietta Gimp, a marden				
RecitationMiss Elizabeth Law				
MUSIC				
RecitationJoseph Roche				
HYPNOTISM, A FARCE IN ONE ACT				
(Scene—A room in Spotts' house)				
CAST OF CHARACTERS				
Mr. Spotts, an amateur hypnotist Mr. Egner				
Mrs. Spotts, his wife Mr. Phipps				
Sammy, a colored boy Mr. Smith				
Pat, a man of all work Mr. Regan				
Miss Mary Maguire Mr. Pratt				
MUSIC				
Recitation Herbert Rose				
INTERMISSION				

Refreshments and social hour.

COMMITTEES

Decoration Mr. Rock	ıе
Entertainment Mr. Robinso	n
Refreshments Mr. Gilbe	rt
ransportation Mr. Cob	b

AGRICULTURAL DEPARTMENT

MANURE AND ACID PHOSPHATE FOR CORN

The high price of fertilizers and other materials has made it necessary for farmers to practice all reasonable economies. Most of the corn produced in Massachusetts is grown on manured land and in the majority of cases some commercial fertilizer is used in addition to the manure. In most cases, this fertilizer is mixed fertilizer containing nitrogen, phosphoric acid and potash, (when the latter is available at reasonable cost).

Since fertilizer prices have vanced many farmers have been questioning whether the fertilizer bill could not be reduced in this particular case. It has long been known that manure is relatively lacking in phosphorie acid and that phosphoric acid is needed to assure early maturity of corn, whether field or silage. Not only is manure lacking in phosphoric acid, but it is rich in nitrogen which delays maturity unless it is supplemented phosphoric acid.

Within the past few years many have grown satisfactory farmers crops of corn using nothing but acid phosphate to supplement moderate or heavy applications of manure. From 300 to 500 pounds per aere was used in most eases. Farmers from parts of the state have done this very satisfactorily. (There is a question about doing this where the seasons are short and the springs late. Where it is questionable it would be better to try it out before adopting it as a practice).

At the present time a ton of acid phosphate costs from \$28.50 to \$30.00 per ton, while brands of fertilizer containing 2 to 3% of ammonia and 8 to 10% of phosphoric acid cost from \$45.00 to \$55.00. It seems then that there is a possibility of economizing

in the fertilizer bill by using acid phosphate alone for corn, when the land has been well manured.

We have been reading for years that acid phosphate should be mixed with manure either in the stable, the manure shed or on the spreader before hauling to the field. This is a satisfactory practice and an economical means of applying the acid phosphate to the field. As far, however, as the acid phosphate is concerned, it is effective when applied in the spring directly to the land.

It is usually recommended that 40 pounds of acid phosphate be used for each ton of manure or, in other words, about one pound per day for each 1000 pounds animal in the stable. Where 20 loads of manure are used per acre, as is often done on some Massachusetts farms, the amount of acid phosphate used per load of manure can be reduced so that from 400 to 500 pounds are used per acre.

APPLE TREE BORER

Have you noticed any holes drilled in the trunks of your apple trees? The borers have been doing quite a bit of damage during these past few years, in some instances whole young apple orchards have been cleaned out. The best method of control is to actually dig out the borer, either with a jack-knife or wire or to fumigate the hole with earbon bisulphide. The County Agent will be glad to furnish any further information desired.

Watch the scions on your bridge grafted trees. As fast as the little buds open rub them off or they will develop and not support the tree.

VARIETIES OF CORN FOR SILAGE

The Massachusetts Experiment Station grew different varieties of silage corn for several years. The yields and maturity of individual varieties varied with the season. All of the varieties grown were classified according to Amherst conditions but as the season is fully as long here in Norfolk County the conditions would not necessarily change very much.

We are very grateful to Prof. Earl Jones for the following data:

- (1) Mature—Twitchell's, Sanford White, Longfellow, Pride of the North (dent) and Rustler (dent).
- (2) Medium Mature—Learning, Early Matadon, Red Cob Silage and White Cap Yellow Dent.
- (3) Immature—Brewers, Klondike and Wing's Improved White Cap.
 - (4) Very Immature—Eureka.

Data Regarding Silage Varieties

Maturity of Varieties	Per cent. Water	Per cent. ears	Г	Ory Matter	
	Green	Green	Avg. Yield	Per cent.	pounds per
	Weight	Weight	per Acre Lbs.	Digested .	Acre digested
Mature	74.3	27.6	7686	74	5688
Med. Mature	75.4	20.7	8344	71	5924
Immature	79.1	17.0	6394	71	4540
Very Immature	82.5	8.5	7858	67	5265
Maturity		Composition	of silage	(Gree	en Weight)
of varieties	Protein	Fat	Nitrogen free	Fibre	Ash
	Per cent.	Per cent.	Extract per cer	it. Per cer	nt. Per cent.
Mature	2.29	0.71	17.94	5.45	1.25
Med. Mature	1.84	0.44	15.23	5.92	1.12
Immature	1.61	0.33	12.35	5.41	1.13
V. Immature	1.63	0.27	9.26	4.78	1.08

The later maturing varieties gave, consistently the largest yields of silage per acre.

The two factors considered in selecting a variety of corn for silage are: (1) The yield of the silage per acre. (2) The nutritive value of the silage fed each cow daily.

The amount of land available for growing silage corn may make it necessary to disregard other considerations and grow high yielding varieties.

The evidence seems clear that as corn nears maturity and as the ears develop: (1) The percentage of fat and nitrogen-free extract increases. (2) The digestibility of the plant increases. (3) The changes in a corn plant as it ripens are such that its

maximum feeding value exists at maturity.

The variety of corn that will produce silage of the best quality for feeding is the one that will produce as large a yield of green forage as possible and ears that come near maturity. (This provided that the corn is planted so that the ears will have an opportunity to develop). In other words the proportion of the ears determines the feeding value of silage. The experience of farmers who have tried both types of silage indicates that cows respond with an increased milk flow when fed silage containing plenty of ears.

The following article by Prof. Earl Jones of the Massachusetts Agricultural College is heartily endorsed by your County Agent.



Farmers' Week at the Massachusetts Agricultural College

Are you planning to get away for Farmers' Week at Amherst, July 26-30? We know that it will be hard to push haying along this season with the shortage of help but feel that the program will be a helpful one and should be taken in if possible. If enough express an interest we will try to arrange for an auto trip with visits along the road and a stop over one night if a suitable camping place can be found. Let us have suggestions from as many as possible.

NEW SEEDING OF CLOVER

Clover is a biennial and even under the best conditions it will not be found after the second year from seeding. In order to have more clover in hay we must have new seeding. Plan to take up some of the land now under cultivation. The following is a good mixture for permanent mowings.

> Timothy—15 pounds Redtop—4 pounds Red Clover—5 pounds Alsike Clover—4 pounds

Clover seed may be expensive but we cannot afford to seed down without it.

MOTOR CULTIVATORS?

The following article by Prof. H. F. Tompson of Arlington seems to answer a question that has been in the minds of some of our market gardeners and fruit growers.

There are many questions at the present time about motor cultivators. Without question they are coming and will be a big item in reducing labor costs. They seem to have been used more extensively in the middle west, particularly in the vicinity of Chicago and Cleveland, than in the The writer has not yet seen what he considers the ideal for hand Unless the preson is cultivation. familiar with machinery and able to handle it to advantage it will probably be wise to defer the purchase of a motor cultivator for the present. On the other hand, as long ago as two or three years, certain market gardeners in Connecticut reported that the use of one of the well advertised makes now on the market had absolutely made it possible for him to save a crop of onions which he could not possibly have taken care The best of without this machine. test is a test on one's own farm and the handling of the machine long enough to know how it really works. There is a knack to it which can not be obtained without some experience.

CORN BORER QUARANTINE

A new quarantine to prevent the shipment of carriers of the corn borer has been put into effect and will be of interest to a portion of the people of our county. The articles specificially covered in the quarantine are corn and broom corn, including all parts of the stalk; celery; beans in the pod; beets with tops; spinach; rhubarb; oat and rye straw; or entire plants of flowers chrysanthemum, aster, cosmos, zinnia and hollyhock; and cut flowers or entire plants of gladiolus and dahlia except the bulbs with stems. The restrictions do not apply to shelled corn and clean seed of broom corn, nor to other articles after they have been manufactured or processed in such a way as to eliminate risk of carrying the corn borer.

The products mentioned may be shipped from one point to another in the restricted area but cannot shipped from the restricted area to a For example, point outside of same. in Norfolk County, Avon, Cohasset, Brookline, Braintree, Holbrook, ton, Quincy, Wellesley, Randolph and Weymouth are known to be infested and products from these towns cannot be shipped to points not infested outside of this area but can be sent to points within this or any other infested area. The previously mentioned crops can be sent from nonrestricted area to a point inside the area under quarantine.

MEREDITH GETTING ACTION

E. T. Meredith, the new Secretary of Agriculture, has started his job as if he is going to accomplish real things. Acting on his advice the Senate Agricultural Committee voted to eliminate from the annual agricultural bill the \$240,000. voted by the House to continue the time honored custom of free distribution of seeds by Congressmen to their constituents.

STATE GRANGE FIELD MEETING

An event which will be of interest to members of the Grange will be the State Grange Field Meeting, August 20th, with Norfolk Pomona Grange No. 27 at the Norfolk County Agricultural School when National Master Sherman J. Lowell of Fredonia, New York will be the principal speaker.

TOP DRESSING FOR HAY

With the price of hay as high as it is we can well afford to think about top dressing part or all of our permanent mowings. An application of about 400 pounds of a 4-8 or a 4-10 mixture costing not more than twelve dollars per acre on an average field should give an increase of about one ton of hay and at its present price it seems like a proposition worth con-If. however. you sidering. fortunate enough to have a good supply of barnyard manure on hand a light application will surely boom the crop.

DAILY MARKET REPORT

It may be of interest to some of our market gardeners and fruit men that our State Department of Agriculture, cooperating with the Boston Market Gardeners' Association, have for a number of years published a daily market report based upon prices received for commodities in the Boston market the day previous. The cost is very small as compared to the benefits received. If you are interested the County Agent will be glad to furnish an application blank and further information.

TRY CLOVER AGAIN

Have you stopped growing clover? If so, why not try again? Lime, in most cases, will insure success. On worn or poorly drained land use alsike clover. It will do better on such land than red clover and less seed will be needed.

POULTRY NOTES

We are having some ideal "chicken weather" and ardent poultry keepers are more than busy. Those who are on the job during the rearing period are usually the ones who reap the benefits of well grown pullets which lay the golden eggs of high prices in the winter.

Success in rearing A number one pullets is due largely to an abundance of vitamines in the ration, which is only another way of saying that the growing stock should have plenty of free range on a good pasture of growing green food.

As the warm weather progresses it is well to be on guard for any few invasions of lice or mites. Α mites or lice now can give rise to hundreds of individuals in the course of the summer. A hint to the wise is sufficient.

Is there a more economical source of meat supply for the farmer than After the goslings are the goose? well started they pick up their own living around the farm and need no feeding except in additional dormant season when they are unable to graze. Farmers' Bulletin No. 767 on "Goose Raising" can be secured by writing The Division of Publication, United States Department of Agriculture, Washington, D. C. you are interested a letter to same address will secure Farmers' Bulletins No. 791 on "Turkey Raising" and No. 697 on "Duck Raising."

The following extract concerning the Buckeye Mammoth ircubator is taken from a recent letter from Mr. Andrews of the Poultry Department of the New York State College Agriculture and may be of interest to some.

the Buckeye "We have used Mammoth incubator for the past two seasons and now have it full of eggs.

During the first season, our hatches were not satisfactory, partly due, I expect, to the fact that the principle of operation is somewhat different from other machines and we did not know exactly how to handle it. Last year our hatches were satisfactory and were unusually good during the latter part of the season. Under our conditions we found it necessary to run the machine at one degree higher temperature than the corpany recommends and we also obtained better results by supplying some additional moisture. I have sufficient confidence in it so that I have placed nearly all of our eggs for hatching in this machine."

"It is more or less commonly believed that abnormally small or large eggs mark either the beginning or the end of a hen's clutch, but this theory is not now tenable. The fact is that hens are more likely to lay very large or very small eggs during the height of the laying season. In other words when egg production is at its zenith there is obviously greater opportunity for unusual things to occur. eggs and big eggs do not mean that a hen has just started to lay or has finished and is about to become broody; these undersized and oversired eggs are simply a good sign that the flock is laying heavily."-Storrs Agricultural Experiment Station.

Crows and hawks delight in stealing young chicks, especially on range and one will have to be on his guard to prevent them from doing a large One of the best amount of damage. ways to catch crows is to place steel foot traps on the tops of posts which may be located in different parts of the poultry yards. After catching a crow or two by this method they become more wary than ever so it is a good idea to change the traps to different posts or fences from time to One has to resort to the use of a shot gun now and then but it is surprising how many of this black feathered tribe seem to be bullet proof.

HOME MAKING DEPARTMENT

A PLAN OF SPENDING FOR THE HOME

The Work Required in Keeping an Account of the Household Expenditures Will Bring Its Own Reward

The question of the financial administration of the household is one that is being very generally discussed at the present time. The majority of momen, however, have never taken the matter very seriously. Very few have had training in the keeping of accounts and most have looked upon it as a burden. They have either never attempted to keep a household account book, or, if they have started, they have discontinued it after a time.

The higher cost of almost all commodities is causing women to see that they must plan much more carefully than hitherto, that they must know the intrinsic value of articles purchased, that they must select more wisely and use to better advantage the things needed in the household. Everywhere there felt the need of better business methods. We are beginning to appreciate the fact that the same fundamental principles must be applied in carrying on the business of the home as are used by industrial or commercial firms.

The successful business firm must systematize every phase of its work, must know the purchasing power of the dollar, the values in machinery, in convenient arrangement of equipment, in processes and methods, in raw materials, in finished products, in time and human energy. The firm must constantly study changing conditions as they present themselves, readjust values when necessary, and improve the methods of work and the quality of products put out.

Practically the same problems present themselves to the women at the head of the home. She is, so to speak, the business manager of the home. The house or home is her

plant. She is concerned with the arrangement and equipment of that plant to meet the needs of the family both as a group and as made up of individuals; with the organization and execution of the work in the plant; with the purchase and use of materials and supplies; with the administration of the family income.

Just as no business firm can succeed without keeping books and knowing exactly where it stands financially, so no home, in these days, can be successfuly financed and administered unless the woman in the home knows values, selects wisely, makes the best possible use of commodities and keeps some record of receipts and expenditures, the money expended being apportioned according to a definite plan of spending worked out to meet the needs of the individual family.

Every household should have such a Plan of Spending. It is difficult to work out a plan unless the woman has for a period of a year at least, and better for three years, a record of (1) the amount and kind of expenditures made and the value of each; (2) a classified list of expenditures so that she may know what is being spent for each group in the classification. The household account book should be so arranged as to give her this information clearly and easily.

The account book should provide for the following:

Spaces to show the total receipts of the household and the sources of such receipts, whether from salary, interest on investments, rents from properties, or goods sold, as, for example, the butter and egg money which the woman of the farm usually has for her own use.

A date column to indicate when

moneys are received and expenditures made.

A column to record the amount and kind of articles purchased.

A column in which to place the value of articles purchased for the household, the term value having two interpretations: (1) the cost of articles purchased at the store (2) the amount that would have been received if the articles had been raised on the farm and sold from the farm or garden.

Columns for the classified expenditures grouped under such headings as the following: Food, Clothing, Operating Expenses, Property Expenses, Health and Unclassified Items, The Life of the Home.

A summary page to record the monthly totals from which the yearly total is made. This page may also provide a form to compare the actual expenditures as made for the year and the suggested apportionment of the income according to standards worked out by economists.

A study and comparison of expendi-

tures as shown by daily purchases and monthly totals will help the woman to make readjustments if she finds that she has overspent or underspent on any one group in the classification.

No doubt, the work of keeping the accounts for the first two or three months will require a considerable amount of time on the part of the woman of the home. But, if it is made a part of the regular daily program, the accounting will be taken care of just as any other work of the household. (Article taken from the October issue of the Journal of Home Economics).

Have you seen the Massachusetts Household Account Book which is published by the Massachusetts Agricultural College? It is a complete, concise book and costs only fifteen cents. We have a new supply at the Farm Bureau office and the Home Demonstration Agent will gladly send you a copy.

SUGGESTIONS FOR THE HOME GARDENER

Plant Now for Your Food Supply Next Winter

- 1. It has been predicted that we may experience a more serious food shortage in this country this coming winter than we did during the period of the war. Plant your garden with this in view.
- 2. Plan to grow a sufficient quantity of vegetables to supply your family with fresh vegetables during the summer and for a liberal supply for canning and storing. If you grow your own supply, you will not need to worry about your next winter's food.
- 3. Grow plenty of peas, beans, corn, and the root crops. They are excellent year round foods.
- 4. Make your land yield a maximum amount of crops. Arrange for a succession of crops so that as soon as

- one crop is harvested, another is sown in its place.
- 5. Select varieties that will yield quality first and quantity second. If you wish advice regarding this, consult your County Agricultural Agent.
- 6. Plant early varieties for immediate consumption and mid season and la'e varieties for canning and storing.
- 7. There is a supply of printed information on the subject of gardening at the Farm Bureau Office. Do you own the bulletin "Farm Garden in the North?"
- 8. All vegetables may be canned by the Cold Pack method of canning. Your Home Demonstration Agent will advise you regarding this and provide you with bulletins.

COMING IN JUNE

Sectional Conferences for the Women of Norfolk County

Those who attended the Farm Bureau Conference held last June in North Weymouth and Wretham will be glad to know that similar conferences with equally interesting programs are being planned for this year. Already some of the women who attended last year are asking the Home Demonstration Agent if we are not going to have conferences again this year.

The Home Making Department of

the Farm Bureau is planning to hold sectional conferences in the eastern and western ends of Norfolk County in the middle of June. Watch our June bulletin for an announcement of the date and place of the meetings and the program to be given. Any woman in Norfolk County is especially invited to attend these conferences and if you have friends in other counties whom you would like to bring, they, too, will be very welcome.

HAVE YOU A BETTER CAKE RECIPE?

The Home Demonstration Agent Will Be Glad to Publish It.

Mahogany Cake

Yolks of 2 eggs, ½ c. milk, 2 T. cocoa. Mix and cook in double boiler, stirring all the time until thick. When cool, add 1 c. sugar, ½ c. milk, in which 1 scant teaspoon of soda has been dissolved, 2 T. melted butter, 1½ c. flour, 1 t. vanilla, ½ t. salt.

Frosting—Boil 1½ c. sugar and ½ c. cold water until it hairs. Add to the stiffly beaten whites of 2 eggs. Flavor with vanilla and beat until cool enough to spread.

MRS. F. B. BROOKS, Holbrook. Quick Loaf Cake (2 loaves)

2 c. sugar

4 c. flour

1 c. raisins

1 egg

3/4 c. butter substitute

2 c. milk

3 t. baking powder

½ t. salt

1 t. vanilla

Follow general directions for making cake.

Chocolate Sponge Cake

3 eggs, 1½ c. sugar, ½ t. salt, 2 or 3 T. cocoa, 2 t. baking powder sifted

with 1¾ c. flour. Mix in the order given, beating thoroughly, add ¼ c. thin cream filling cup to a scant ¾ cupful with hot water. Beat again well, flavor with vanilla and bake in a medium shallow pan in a moderate oven.

MRS. A. A. BOUTELLE, Canton.

Cream Sponge Cake

2 eggs beaten well

1 c. sugar

 $\frac{1}{2}$ c. milk

½ t. salt

2 t. baking powder sifted in

1½ c. pastry flour

Flavor and bake in a hot oven.
MRS. F. B. BROOKS, Holbrook.

Soft Molasses Gingerbread

3 c. flour

½ c. lard, butter substitute or mazola worked into flour

1 c. cold water

2 c. molasses

1 t. each ginger and cinnamon

11/4 t. soda

1 t. salt

Follow general directions for cake making. Bake in cupcake rings.

MRS. E. F. RUSSELL, Plainville.

ITEMS OF INTEREST

We have just completed in Cohasset one of the most successful series of clothing efficiency lessons held in the county this season. By vote of the class all day sessions were held and in this way the course was completed in seven lessons. businesslike atmosphere at the lessons and the interest of the members in the work contributed largely the success. The class was composed of eight working members, each meeting there were six regular observers. With the exception of two meetings, we had a 100 per cent. attendance and seven of the eight members were present at every meeting.

Mrs. Reed, Clothing Specialist of the State Extension Service. spent April 6 in Foxboro giving a practical demonstration in the selection of clothing for health. Forty women attended the demonstration and clothing and health project leaders five towns in the county were present. The meeting was held in the Foxboro Thrift Center under the auspices of the Foxboro Efficiency Club. A buffet lunch was served by the Foxboro group to supplement a basket lunch brought by the guests. A very valuable day was spent not only by those who took part in the demonstration, but by those who came as observers.

A request was sent out in March to the nine clothing efficiency clubs that had completed the course for a report of work done between December and March. Following is a summary of the report from nine clubs with a total of 98 members reporting: 407 garments made

177 other women to whom the course has been completely taught by original class members

153 other women assisted by original class members

The report shows that not only garments are being made by the

original class members but that the work is being carried on to other women. Through the efforts of the local clothing project leaders, 330 other women have been taught a part of the clothing efficiency course.

We expect that the report of the following three months will be much larger for many of the clubs had just completed the course when this report was taken.

Two very successful classes in milline y have been held in Holbrook and Randolph during March. A series of 5, three and one half hour lessons have been given by Miss Elizabeth Caulfield and at least one hat has been completed by each of the twenty-seven women taking the course.

A record of the cost of material purchased for making and trimming a hat was kept by each member so that she might compare the cost of the material with the valuation placed by the teacher on the finished product. 35 hats were completed during the course by 27 women, \$90.97 were spent for materials and the value of the hats placed at \$355.00. In nearly every instance the women averaged to save from \$5.00 to \$8.00 by making their hats, and some exceptionally fine hats were made.

Since the meat bill monopolizes the largest part of the family grocery bill and is the hardest for the housewife to combat, the Woman's Division Justice has of the Department of instituted a meat saving week to be held during the week of May 3, as one feature in reducing the high cost of living. To assist the women with this problem, they have issued a booklet of recipes entitled, "Save Money on Meat." This book explains the less costly meat cuts, shows whence they come, gives their food values uses, and tells how properly to prepare them: Watch the papers for extracts from this booklet.

JUNIOR EXTENSION DEPARTMENT

PARENTS ASKED TO CONSIDER CANNING CLUB SITUATION

Planting season is already here and in a few months the gardens will show the results. Thrifty people are planting in excess of their immediate summer needs in anticipation of the high prices next winter. The question to consider is—who will take care of the surplus during the summer months? It must be preserved and canning is the generally accepted method of preservation.

The boys' and girls' canning club which opens May 15 and closes November 1st provides for this very thing. Young people from 10-19 years may enroll in these clubs which are formed in groups with adult local leaders in charge. These groups meet every fortnight and instruction in canning is usually given. Then the remainder of the canting is done at home with products from the home garden.

Like all state clubs, a minimum requirement is given, this being to can 24 jars, exhibit 5 varieties, keep a record of work and write a story of experience. However, the members are urged to help the home food situation and can as much as is practicable. For this reason those who have no access to gardens are di couraged from joining. Additional requirements for those who have successfully completed one or two year's contests are given in the Club News.

In Norfolk County there seems to be a great deal of growing interest towards the canning club. We are not working for a large enrollment but are glad to receive any who promise good work.

Parents are asked to think the matter over very carefully before signing the enrollment cards and to cooperate in every way possible during the contest. In this way the work will be a benefit to the club member in the instruction and training he receives, to the family in help-

ing towards next winter's food supply, to the community in making it more self supporting and to the nation in increasing production and in reducing high prices.

TTEMS

Evening exhibits are to be held in two of the Weymouth clubs, May 11th and 12th. It is hoped that many parents will attend for very interesting programs have been planned. The exhibit on May 11th will be held at the High School, the 12th in South Weymouth. Bellingham, Randolph and Dedham are also planning for evening exhibits.

Is there to be a home economics exhibit in your town? If so, plan to attend for you will enjoy it. The dates will be found in the Club News.

Dedham is planning a large exhibit by their combined seven home economics clubs on Friday, May 7th, in Ames School Hall, afternoon and evening. Over 100 members will contribute products. Demonstrations, songs, and talks by club members will appear on the program.

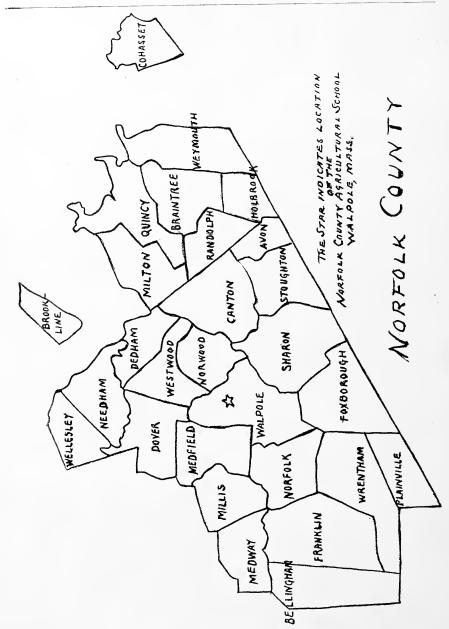
SPRING GARDEN WORK

Needham Grange is taking active charge of summer supervision. Nearly one hundred boys and girls will be visited regularly by committee members.

Dedham intends to do better work than ever. A supervisor will be on the job during the summer and possibly all the year around.

Foxboro is arranging a garden committee made up of delegates from several of the town organizations.

These towns are just samples. There are many more like them.



ALL ROADS LEAD TO WALPOLE

County Agricultural Fair, Norfolk County Agricultural School September 15 and 16, 1920

NORFOLK COUNTY AGRICULTURAL AND HOME MAKING BULLETIN



DEMONSTRATION ORCHARD ON FARM OF C. A. WILSON, WEST MEDWAY

PUBLISHED BY

THE

NORFOLK COUNTY AGRICULTURAL SCHOOL WALPOLE, MASSACHUSETTS.

VOL. III

JUNE, 1920

No. 30



NORFOLK COUNTY AGRICULTURAL AND HOME MAKING BULLETIN

Entered as second class matter June 7, 1917, at the Post Office at Walpole, Mass., under the act of August 24, 1912.

VOL. III

JUNE, 1920

No. 30

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TIMELY TOPICS

The photograph on the shows an orchard on the farm of Mr. C. A. Wilson of West Medway in full bloom. The trees are almost ready for the third spray to control codling moth, curculio, apple scab, red bug, gypsy moth and aphis. This spray should be applied immediately after the petals fall and should contain the following ingredients: lime sulphur, 1 gallon; 40% nicotine sulphate, 3/8 pint; arsenate of lead, 3-5 pounds or dry 11/2-21/2 pounds; water, 50 gallons. It is well to add an extra five pounds of water slaked lime to each fifty gallons of water

to prevent any possible injury to the foliage of the trees.

We are revising our mailing list. If you wish to continue receiving the Bulletin will you kindly sign the enclosed card and mail same to us on or before June 30th? If you know of others who would like the Bulletin give their names and addresses.

FIRST GRADUATION EXERCISES OF THE NORFOLK COUNTY - AGRICULTURAL SCHOOL

The first graduation exercises of the Norfolk County Agricultural School were held on the evening of May 14th. The speaker of the evening was Mr. John D. Willard, Director of the Extension Service. Massachusetts Agricultural College, whose forceful address showed the important relationship between a nation's population and its food pro-Mr. E. F. Richardson. Chairman of the Board of Trustees, after appropriate remarks to both the graduating class and the audience, presented the diplomas. The five graduates, Henry Andrew Egner, Nelson Carlyle Pratt, Leon Ashley Regan, Clinton Henry Rockwood, and Carl John Wiklund, have attended the School since its establishment in 1916 and are all planning to e ter the Massachusetts Agricultural College in the fall. The following program was given:

Music (a) March, "America Forever" (b) Selection—"Northern Lights"

Orchestra

Invocation.

Rev. Alexander L. McKenzie Song, "Carry Me Back to Old

Virginny" School Joseph K. Blanchard, Accompanist.

"My Agricultural Education"

Henry A. Egner

"The Farmers' Allies"

Clinton H. Rockwood

Selection, "Naila" Orchestra

"The Ag icultural Situation in Norfolk County", Nelson C. Pratt

"Indian Corn", Carl J. E. Wiklund Song, "The Jolly Blacksmith's Lay",

School

Class Prophecy, Leon A. Regan

Address, John D. Willard, Director of the Extension Service, Massachusetts Agricultural College.

Selection, "Liberty Boys", Orchestra Presentation of Diplomas, Evan F. Richardson, Chairman, Board of Trustees. Norfolk County Agricultural School.

"America", By the Audience

STATE GRANGE FIELD DAY

The Massachusetts State Grange will hold a Field Meeting at the Norfolk County Agricultural School on Friday, August 20th, under the auspices of Norfolk Pomona Grange, No. 27. National Master Sherman J. Lowell of Fredonia, New York will be one of the speakers. A program of the meeting will appear in the August issue of the Bulletin.

Mr. Samuel Knowles, the new Instructor in Market Gardening, was born in England and graduated from an English college. For twenty years he has made a special study of poultry and market gardening. For many years he has been a lecturer on poultry for the State Boards of Agriculture of Massachusetts and

Rhode Island. He was born and raised in gardening and gained much knowledge and experience among greethouse men and gardeners of Lexing on. Arlington. Lincoln and Waltham. In a special course on botany at Harvard Mr. Knowles received the highest marks given and was invited to lecture to the class on practical gardening. Five years ago he settled on a small farm in North Easton. In 1917 the Town Committee asked him to direct the food production movement and the product of the home gardens under his supervision reduced the sales of all kinds of vegetables in the stores seventy-five per cent. Early in 1918 he undertook the work of food production for the town of Canton and for two years was the director for the town.

WHAT SOME OF OUR STUDENTS ARE DOING DURING THE SUMMER MONTHS

Leon A. Regan of Walpole has been elected Assistant Boys' and Girls' Club Leader and will work under the direction of Mr. Dizer, County Club Leader. Mr. Regan has had practical experience in garden work and his report card shows well above 90% in his studies.

Nelson C. Pratt of Cohasset will act as Garden Supervisor for the School Department of the City of Quincy. Mr. Pratt also is a practical man with experience and excellent

standing in the School.

Carl J. E. Wiklund of Norfolk has taken charge of the poultry plant at the Medfield State Hospital. Mr. Wiklund is an exceptionally good man from a practical standpoint and his work will be watched carefully by the Instructors at the School.

Henry A. Egner, another Walpole boy, will give three days each week to the supervision of gardens in the town, of Franklin. Mr. Egner was a city boy, coming to Walpole shortly after the Agricultural School was established, and his work shows the result of training received at the school.

Joseph Roche of Hyde Park has just been appointed by the School Department of Boston as Garden Supervisor in the Hyde Park District. Mr. Roche's parents have purchased a farm in Norfolk and will move there in the near future. Mr. Roche is a conscientious student and we expect his work to show good results.

William Fisher of North Attleboro is working at Lone Tree Farm, New Canaan, Connecticut. This is a large dairy farm, supplying milk to the New York City market. Mr. Fisher expects the experience received will be of advantage to him in his future work.

The Trustees of the Norfolk County Agricultural School visited the Bristol County Agricultural School on May 19th. Such visits are of value other than in a social way as they give us an idea of what others are doing along similar lines of work. While we shall endeavor to work out our problems in our own way to the best of our ability, seeing the work of another school older than ours in years will naturally be of assistance to us.

Miss Susan A. Roundy of Worcester has been secured to fill the vacancy in the position of Assistant County Club Leader caused by the marriage of Miss Homer. Roundy is a Simmons College graduate in the class of 1919 and has been teaching household science and allied subjects at the Lyndon Institute, known as the Theodore N. Vail School, Lyndonville, Vermont. previous experience in club has been assisting her sister who was Assistant County Club Leader in Worcester County. Last summer she was in charge of a community canning kitchen in Worcester. recommendations are of the highest and she seems particularly fitted to fill her new position.

A limited supply of Massachusetts Agricultural College Bulletin No. 34 "Spraying the Apple Orchard" by Prof. F. C. Sears has been received at your Farm Bureau office and a copy will be sent you upon request. Remember that the supply is limited so drop us a line at once.

We have just published a little booklet "Men in the Making" for circulation in the public schools of the In a general way it gives county. an outline of the aims and purposes of the school. It also contains many isteresting illustrations descriptive of the school buildings and work of We trust that this the students. booklet may be of interest to some of the boys in our high and grammar schools who wish to take up the study of agriculture. Send us your name and address if you wish a copy.

AGRICULTURAL DEPARTMENT

FARMERS, MARKET GARDENERS AND FRUIT MEN OF NORFOLK COUNTY

The time has come for us to take immediate action on the size of a produce box to be used in our markets this year. For some time the market gardeners supplying the Providence market have been using what is now the United States standard bushel box which will measure $17\frac{1}{2} \times 17\frac{1}{2} \times 7^{1}/_{16}$ inches inside dimensions and which is to have ends not less than $\frac{5}{8}$ inches in thickness and sides and bottoms not less than $\frac{3}{8}$ inches in thickness and containing 2150.42 cubic inches.

The Boston Market Gardener's Association is endorsing this proposition and Prof. H. F. Tompson of Arlington writes as follows:

We have assurance from the Bureau of Markets that it will be satisfactory for this package to be marked UNITED STATES STANDARD This is very important, BUSHEL. The box which has been in use for a great many years is naturally considered standard, and most people believe that it holds a bushel. the most natural thing in the world for the users of the new box to be accused of short measure. Few will stop to realize the unfairness which has prevailed in the use of the old box with respect to the farmer, but everybody will have ample notice of the reduction in size of the package, and growers need to protect themselves by marking the package as to actual content. It is a common and easy thing for people to criticise and accuse of short measure. It is such a rare occasion in trade for any body of business men to use a package which is 1/5 oversize, that no credit has ever been received, or ever will be received for such use, by the general public. The sooner we can adopt a package which holds a United States standard measure, the better.

The recommended marking for these boxes is:

STANDARD BUSHEL PRODUCE BOX U. S. STD. BU.

The printing should be in letters not less than one (1) inch in height, of block type, and should fairly well cover the side of the box. It is far best to have the marking on both sides so that if one side becomes damaged the other will still show the necessary marking. On first thought growers will feel that to mark boxes will single them out for a short price in the market. In all probability some effort will be made to discourage the use of this new box. the same time vegetable growers cannot lay themselves liable to and accusation which it is hard to refute. The marking of the package as suggested will take care of this in good shape.

Your County Agent will be glad to furnish further information on this subject and can give the addresses of companies manufacturing standard box shook.

BRIDGE GRAFTING WORK COMPLETED

The work of bridge grafting girdled fruit trees in the County has been satisfactorily cleaned up. strations have been held in about all of the towns with small but interested audiences present. A number of the commercial orchardists have hired experts to do the work for them but most of the smaller growers have simply gone at it and in most cases the trees will pull through. The County Agent wishes to take this space to thank the many volunteers who helped to push this work along.

PUREBRED SIRES GAINING

R. B. Cooley

The State-wide Campaign for purebred sires is meeting with very encouraging results. In certain communities, however, some farmers are slow to accept, in a practical fashion, the economical results of using only purebred sires. We have abundant evidence from our best live-stock men all over North America showing the practical economy of using purebred sires.

One notable example comes from the Brown County Cow Testing Association in Wisconsin. The 12 highest producing cows for last year each made 365 lbs. fat or more and were all sired by purebred bulls, six by one sire. Also, the men whose herds hold the five highest places on the list for the year, use purebred As a final Knockout for the scrub sire, the record figures testify that the five poorest herds are those where grade or scrub sires are used. Herds with purebred sires averaged 85 lbs, more fat per cow in the year than those in the association where unregistered sires were used. cents per lb. butterfat this amounts to \$59.50 per cow as a reward to the men who have invested in worthwhile sires. In a 20-cow herd the difference totals \$1190, enough to buy a good bull and a good balance left. It is \$1190 easily secured but which the owner of a 20 cow herd where the scrub sire is used, did not get.

The greatest care should be exercised in choosing a herd sire. Altogether too many are butchered before their value is proven from the production of daughters. The only satisfactory and certain way of knowing worthy sires is to retain them long enough for their daughters to prove increased production over their dams. This can be done only by weighing the milk regularly for a year or more. Blanks for this purpose are furnished free by your County Agricultural Agent.

FARM SITUATION

The shortage and high price of labor, coupled with poor transportation of farm supplies and a late season is presenting to us a problem that is hard to solve. Seed and commercial fertilizer ordered during the early months of the year are in some instances still awaiting shipment. The general farm work in turn is about two weeks later than usual owing to continued wet and cold weather. While we do not wish to be pessemistic we do feel that the consumer of farm produce should have these facts firmly impressed upon their minds as a partial explanation of the high prices that are bound to follow a reduced crop production this season.

APPLE TREE BORER

Did you read the article on the borer in our last bulletin? If not, be sure to read it for unless taken care of immediately the borers will do a great deal of damage in your orchard. As soon as you notice the little sawdust like castings get right after them.

RAPE AS A FORAGE CROP FOR HOGS

Rape, sown about ten pounds per acre in drills or with millet, makes excellent pasturage for hogs during the late summer months. This may be sown on land too rough to mow and the hogs turned in after it has made a fair growth.

BULLETINS AVAILABLE

The County Agent is preparing a list of available government gratis literature of interest to citizens of Norfolk County. This list will be sent as a circular letter but a copy will be sent in advance upon request.

HOME GARDENS

H. F. Thompson

During the war every effort was made to stimulate home gardens, and the results were decidedly successful. Judging from occasional reports it would seem as if there had been a letting up in this home production of food stuffs. In fact, not infrequently have we heard it said that the increased prosperity of the present time made it unnecessary for persons to spend their time at work when they might better spend it at play.

We sincerely hope that many folks learned the home garden habit during the war, and will continue it. It is one of the finest assets that can come to a home, particularly if properly managed. It seems to the writer as if a home garden provided an opportunity for combined family endeavor, which will give health, pleasure, and profitable occupation.

Many commercial vegetable growers have realized a loss in the past because of extensive home gardening. It is the general opinion, however, that this loss is a temporary one, and that the love of fresh vegetables, the increased appetite for this type of food, and a realization of the better health that comes with it, will develop the vegetable eating habit on the part of all the family, which will work out to the advantage of commercial growers.

It seems to the writer as if conditions just at present were such that it is even more important to have home gardens in 1920 than before, Commercial growers are being compelled to reduce their acreage very materially because they cannot find labor. It is hard for the average person to understand why it is not good business for the farmer to keep pace with the factory in wages for labor. A little experience at gardening soon brings home the conviction that there are many things beyond the control of the gardener. Furthermore, the nature of garden products is such that they must be sold soon after they reach market. If the immediate supply exceeds the immediate demand, there must be a sufficient reduction in price to compel a quick The factors which make the gardening business more or less risky have proved to the experienced man, that he must be conservative in order to prevent serious loss. Market conditions even during this last winter, and already this spring have brought about wholesale prices which are no higher than they have been in the past years. At the time of writing dandelions are selling no higher in the market than they have for many years when the cost of production has been only about one half.

It is certain that commercial production is to be very much lower than normal, shipping conditions are likely to be uncertain, and the total supply is likely to be insufficient. facts make it seem very important for home gardeners to raise what they can to prevent actual want, Their attention should be given to the production of some of the staples, outside of a few relishes like radishes and lettuce which can be produced without much difficulty in the spring. String beans, and shell beans, tomatoes, some beets, carrots, and potatoes where land is available, will prove very suitable products. beans, beets, and tomatoes can be canned for winter. Potatoes can be If there is sufficient nicely stored. area other crops can be added. There is yet time to get the garden started.

The Extension Service of the Massachusetts Agricultural College has publications on home vegetable gardens which may be of use to readers, if desired. Your county agent stands ready to give much assistance along this line.

Remember to mark your calendar July 26-31 for the Farmers' Week at the Massachusetts Agricultural College. You cannot afford to miss it. Just put a cross alongside of the days that you will be able to get away.

CHECK SYSTEM OF PLANTING

While the horse drawn corn planter finishes the work of planting a piece of corn or field beans more quickly, the old method of checking off the piece with a marker is bound to be rather popular this year with labor conditions as they are.

The plan is to manufacture a three row marker out of old material about the farm with a pair of pole shafts and an old set of cultivator handles. When once a row is lined out across the piece each way the rest is easy for the first tooth of the marker simply follows the mark made by the third one on the previous trip. The seed is dropped at the junction of the two rows and as the crop can be cultivated both ways with horse drawn tools, the amount of hand labor required is very small. Cabbage, cauliflower, etc., may be set with the rows checked off thirty inches each way affording ample room for careful cultivation.

TOP DRESSING FIELD CROPS

The delayed shipment of commercial plant food has caused a great deal of worry among the farmers of Norfolk County. be of interest to many to know that a portion of the fertilizer can be applied after the crops are well The application started in growth. of about three hundred pounds of a good po'ato mixture just before cultivation will push the crop along in good shape. Acid phosphate and some form of ammonia applied to corn as a top dressing will prove a great help. The same program of fertilization can be carried through with most of the small garden crops.

We are revising our mailing list. If you wish to continue receiving the Bulletin will you kindly sign the enclosed card and mail same to us on or before June 30th? If you know of others who would like the Bulletin give their names and addresses.

POULTRY NOTES

Shade should be provided for the growing stock. Trees are best, of course, but artificial shade may be provided by erecting frames of burlap or muslin on props about two feet from the ground.

Keep the young stock growing. Plenty of green feed, preferably in the form of free range, fresh water and growing rations will help to do the trick.

Overcrowding is a frequent source of loss at this season. Provide plenty of ventilation, especially on warm nights, also put roosts up which will tend to do away with the losses from this source.

Gapes come to chicks raised on infected soil so that the remedy for this trouble is to remove chicks to new ground each year.

Watch out for lice on the chicks that are with hens. A little vaseline or sweet oil rubbed on their heads when hatched or put wherever examination shows there are any lice will take care of the trouble.

Fewer double yolked eggs are laid as hens grow older. It has been estimated that more than eighty per cent, of all double yolked eggs are laid by pullets less than one year old. Storrs Bulletin.

The rooster does not help the hens to lay. He merely fertilizes the germ of the egg. Hence, when the incubating season is over, pen up the roosters or sell them. Hens not running with a male bird will produce infertile eggs—quality eggs that keep best and market best.

Broilers are bringing good prices now so that it seldom pays to carry over surplus cockerels or cull pullets that are salable.

HOME MAKING DEPARTMENT

WE WILL MEET YOU JUNE 10TH AND 11TH

At the Farm Bureau Conferences in Quincy and Wrentham

The time and place have been set and the program is being arranged for the Farm Bureau sectional conferences that are to be held June 10th and 11th in Eastern and Western Norfolk County.

This is your opportunity to come and get acquainted with the work which the Home Making Department of the Farm Bureau is furthering and the people from the neighboring towns that are carrying on the work. We feel that the conferences last June were so successful that we are following the same general plan We are hoping that all this year. those who attended last year will come again this year and bring other women whom they would like to have become acquainted with this work,

The eastern conference will be held June 10th at the Wollaston Yacht Club and the western conference on June 11th at Lake Pearl, Wrentham. The program will start at 10.15 and continue until 4.30 and we feel that we have a program that will be interest-

ing to all. During the past year, many women have kept a record of their household expenses. We are going to make use of these figures and will present to you at the conference records that show how women have spent salaries, varying from \$2,000 to \$5,000. Making a budget from these figures will also be discussed, and if you would like assistance along this line, come and let us help you. The results of experimental work done in food preservation during the past year at the Massachusetts Agricultural College will be presented. Clothing and its relation to health will be discussed and other phases of our county health program will be presented. Plans for the fall County Agricultural Fair will be explained at this conference.

This will give you a general idea of our plans; a detailed program will be mailed you later. Reserve the date and come. We will try and furnish you with an interesting program and in return would like your support in the work.

RECIPES TO BE TRIED

Tested by Norfolk County Cooks

Frosted Lemon Pie

1 lemon salt

1 c. sugar 1 T. butter

1 c. water 1 T. cornstarch

2 eggs

Mix the cornstarch in a little cold water, add to the hot water and cook five minutes, stirring until smooth. Add the butter, sugar, lemon juice and grated rind. When slightly cool, add the beaten yolks of two eggs. Pour mixture on pie crust which has been baked. Beat the egg whites until stiff. Add 1 or 2 T. of powdered sugar; spread on pie and brown.

Mrs. W. A. Young, Foxboro.

Lemon Apple Pie

Mix together the juice and grated rind of one lemon, 1 c. of sugar, 1 egg, and the grated pulp of two apples. Bake between 2 crusts.

Mrs. W. A. Young, Foxboro.

Lemon Rice Pudding

Combine $^2/_3$ c. cold boiled rice, 1 pt. milk, grated rind of 1 lemon, a little salt, 1 whole egg and yolk of 2 eggs, and sugar to sweeten. Bake in a slow oven. Beat the whites of 2 eggs stiffly, add the juice of 1 lemon and $\frac{1}{2}$ c. sugar. Frost and brown in a moderate oven.

Mrs. W. A. Young, Foxboro.

Lemon Cream Pic

Mix together 1 dessert spoonful of flour, $^2/_3$ c. sugar, the beaten yolks of two eggs, juice and grated rind of one lemon, and $\frac{1}{2}$ c. milk. Fold in the stiffly beaten whites of 2 eggs. Bake the pie crust a short time before adding the mixture, return to the oven and complete baking.

Mrs. W. A. Young, Foxboro. Snicker Doodles

2 c. sugar creamed with 34 c. butter substitute, 2 eggs, 1 c. sweet milk, 3 t. baking powder sifted with 4 cups of flour, 1 c. currants or raisins cut fine. Drop by spoonfuls on buttered tin, sprinkle with cinnamon and sugar and bake in a quick oven. The mixture may be baked in a thin sheet and cut when partly cool into small squares.

Mrs. A. A. Boutelle, Canton.
Brambles

1 egg, 1 c. sugar, 1 c. chopped raisins, juice and rind of 1 lemon, 1 cracker rolled fine. Cook until thick enough to spread. Line a cake tin with pie crust, spread with a layer of the filling and cover with crust. Bake and cut in small squares.

Mrs. A. L. Dunn, Franklin.

QUERIES

Issued By The Food Department of the Women's Municipal League of Boston

Does your grocer stand on the edge of the sugar and flour bins to take groceries from the shelves?

Is food protected from dust, flies and handling?

Are vegetables raised the required 18 inches from the floor?

Is food protected from cats and dogs?

Are bakery products covered during delivery to the shop?

If any one of these questions cannot be answered favorably, report the fact, over your signature, giving the name and address of the dealer. An effort will be made to assist him in correcting this condition. We are revising our mailing list. If you wish to continue receiving the Bulletin will you kindly sign the enclosed card and mail same to us on or before June 30th? If you know of others who would like the Bulletin give their names and addresses.

MORE HOT SCHOOL LUNCHES IN NORFOLK COUNTY

Lunches Started Last Year Have Continued and Three New Lunches Have Been Organized

A hot dish served to children who remain at school with a cold lunch increases both the physical and mental efficiency of the child. We are glad to note that the hot lunches previously started in Norfolk County are continuing, and that hot lunches have been started this past winter in Bellingham, Braintree, and Sharon. Reports from these three towns show that there was a need for the hot lunch and that it has been appreciated by the children.

In Bellingham where the cocoa was prepared and served by the Home Economics Club girls, the average number of cups sold per day was 15, the greatest number sold on any day being 20.

The hot lunch in the Sharon grammar schools was carried on under the direction of the Civics Department of the Woman's Club. The lunch has been prepared by a paid worker and an average of 35 children have been served.

In Braintree where 125 pupils often remain for lunch, an average of 60 cups of soup or cocoa were served, the maximum number on any one day being 116. Here the lunch was prepared and served by a committee of ten women from the Home Economics Department of the Grange. Funds were secured by this committee and their service contributed

to this excellent cause. Between the dates of January 19th and April 26th, 3,385 cups of cocoa, 54 cups of soup, and 65 cups of milk have been served. The poor attendance in the schools this winter caused by the severe weather has made the number of children served much smaller than it would have been under normal conditions.

The hot lunch project offers a splendid opportunity for organizations to carry out a fine piece of community service work. There are still at least ten towns in this county where hot lunches are not being served. Is your town in this group?

ITEMS OF INTEREST

Here are four practical suggestions which have been given the Home Demonstration Agent during the past month by housekeepers in the county:

- 1. You can still have rhubarb sauce and rhubarb pies in spite of the sugar shortage if you will remember to put a pinch of soda with the rhubarb. The soda neutralizes the acid and less sugar is required. This is also applicable to sour cherries.
- 2. The easiest way to remove fat droplets from broth is to strain it through flannel as the fat will not pass through the closely woven cloth.
- 3. An excellent stationary pin cushion for a sewing machine may be made by fastening several thicknesses of soft woolen cloth around

the cross bar of the sewing machine.

4. An inexpensive paint brush is a fine thing with which to clean the wires of an electric toaster.

The Home Demonstration Agent's time is so closely scheduled that she rarely finds time to visit the interesting and worthwhile projects that are being carried on by the Home Demonstration Agents in other parts of the State. In order to acquaint the Hore Demonstration Agents with the outstanding features in other counties, a three days' tour has been planned for June 2nd, 3rd, and 4th. Twenty-five Home Demonstration Agents in 6 automobiles will tour Norfolk, Bristol, Plymouth and Barnstable Counties to visit work which the Home Demonstration Agents in those cou ties believe to be of greatest interest to their co-workers. tentative program for the tour indicates that health centers, dental clinics, electrically equipped kitchens, school lunches, and clothing efficiency groups will be visited. We would like to take you all with us but we will absorb all that we can and give you a brief account of it in our next bulletin

A Household Budget is a plan for spending the family income during a definite period of time. Planned expenditures will give better returns than haphazard purchases.

HOW ARE YOU SPEN DING FOR FOOD?

The National Dairy Council Has Issued the Following:

The Expenditure For Food	The Expenditure for Food
NOW IS	SHOULD BE
Meat and Fish35%	Meat and Fish12%
Milk and Its Products20%	Milk and its Products44%
Bread and Cereals15%	Bread and Cereals13%
Fruits and Vegetables13%	Fruits and Vegetables17%
Eggs 6%	Eggs6%
Sugar 5%	Sugar 3%
Miscellaneous 5%	Miscellaneous 5%

100%

13

"ME TOO"

The demonstration Agent too Is free from toil and care. She spends much leisure time, like

The while she chants a gladsome air, In thinking what she ought to do-And how, and when, and where.

BLUE MONDAY finds her (sleeves rolled high)

Beside a wash-machine Whose owner cannot figure why It acts so very mean; She struggles with it half a day But still remains serene.

TUESDAY she helps twelve mothers plan

Fit diet for a lad; Cooks one-dish dinuers in a pan That great-grandmother had; And makes twelve dresses from some shirts

That once belonged to Dad.

WEDNESDAY she to the clinic strolls To measure and to weigh Some scores of undernourished souls; Then whiles the time away By talking to a Grange or two Ere dawns another day.

THURSDAY she journeys to some fairs

To judge the cake and pie And put a prize on many wares Or tell the reason why. She "didn't treat all folks alike" Or "passed exhibits by."

FRIDAY she meets a score or two Of housewives who are sad Because they don't know what to do When sugar can't be had. And then she trims them each a hat To make their faces glad.

On SATURDAY she goes afar To start a milk campaign And stalls the County Agent's car Upon a street called Main; She cranks it for an hour or two And gaily starts again.

SUNDAY she washes very clean. Some collars, eight or ten; Then dozes peacefully between The text and the Amen Forgetting that reports are due On Monday morn at ten.

-Mrs. Ida S. Harrington.

On May 6th, 7th, and 8th the Home Demonstratio 1 Agents of Eastern Massachusetts met at Simmons college for a training school in clothing efficiency under Mrs. Reed's instruc-Intensive work was given in tion. the fundamentals and methods of teaching the elementary clothing efficiency course. Suggestions were also given the Home Demonstration Agents in developing the work for the groups that wish to carry on and do advanced work

A real school dental clinic has been started in Cohasset. A dental chair and equipment has been purchased and installed in a room being fitted up for the purpose. A dentist has been secured to give two days of his time each week in examining and treating the children that have de-Tooth paste and secfective teeth. onds in tooth brushes are also being sold to the children so that the good work started in the clinic may be followed up at home.

The Home Demonstration Agent has a new supply of the following bulletins and will gladly send them upon request:

- 1. Fone Canning by the Cold Pack Method.
- 2 The Home Manufacture of Fruit Products.
- 3. Home Vegetable and Fruit Storage.

Are you planning now for your rext winter's food supply? Grow and preserve enough food for the needs of your family.

JUNIOR EXTENSION DEPARTMENT

DEDHAM CLUBS HOLD FINE EXHIBIT

100 Club Members Show Products To the Public

Ames School Hall, Dedham, witnessed a unique sight on the afternoon and evening of May 9th. The seven home economics clubs with a membership approaching 100, combined to hold a joint exhibit of products and present interesting programs to the public. Garments of all sizes and kinds, bread, and biscuits were attractively displayed. These were judged by the Assistant County Club Leader and prize cards awarded in each club. In addition this. through the generosity of the Dedham Maternal Association and some of the teachers, cash prizes were given for the best work in town.

The exhibit was well attended and much interest shown by the citizens of the community. Besides inspecting the fine quality of work that had been done as shown in the exhibits, the people had a slight realization of the training received by the club members from the nature of the programs presented. One rising young orator about eleven years old de-

livered an address on "How Our Parents Can Help Us" in a manner that would have done credit to a campaigner for president! He won many rounds of applause. Demonstrations in bread making, table setting, bed making, and darning showed various club activities.

The prizes were given as follows: best garment, Mildred Mills, 1st., Lily Shaney, 2nd, Theresa Gagliard, 3rd; best loaf of bread, John MacDonald, 1st, Martha Findlen, 2nd, Fralk Gibson, 3rd; best cover for story, Alice Flannagan; best darn, Theresa Gagliard; most work accomplished, John Fay.

Dedham has made a good start in club work. The citizens are urged to remember, however, that it is only a start, and that much work lies ahead. With the interest and enthusiasm of the boys and girls, the active cooperation of the parents and the schools, club work should be a permanent part of the community program for the future.

CANNING CLUBS READY FOR THE START

Old and New Towns Request Assistance in Food Preservation.

The food situation for next winter promises to be so alarming that an interest in canning clubs has started up. There are not many people who do not understand cold pack canning by now but the boys and girls are anxious to learn and are of great assistance to their parents.

May 15th is the time set for the canning clubs to open, but the majority are not organized before June. Thirteen or fourteen towns in the county are ready for work and new ones may be taken on if desired by the community. The following towns are already interested: Braintree.

Canton, Cohasset, Dedham, Foxboro, Franklin, Holbrook, Medfield, Medway, Needham, Plainville, Walpole, Weymouth, Wrentham and Westwood. Three of these, Braintree, Wrentham and Westwood are new in the work.

Different plans for leadership are being developed. Several are to be carried on by committees from the Woman's Club or Grange; in others, town committees with representatives from many organizations are carrying the canning and gardening work together. The broader the interest, the more effective will be the work accomplished.

THE AIM AND VALUE OF BOYS' AND GIRLS' CLUB WORK

By E. T. Meredith, Secretary of Agriculture

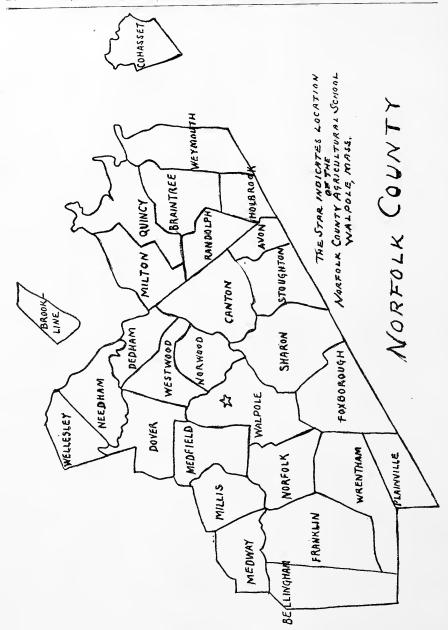
Boys' and Girls' Club work is one of the important features of the Agricultural Extension Work conducted by the States Relations Service. United States Department of Agriculture, in cooperation with the State Agricultural Colleges and local agencies for the purpose of improvagricultural conditions practices throughout the country. These clubs are organized to improve farm and home practices by instructing the boys in correct agricultural methods and the girls in home making; to assist them in demonstrating these methods for the improvement of the farm and home; to aid in the development of cooperation in the family and in the community; to create a more favorable attitude toward the business of farming and home making by encouraging property ownership and the feeling of partnership, and to make rural life more attractive by providing organization which tends to diminish isolation and develop leadership.

These objects are in process of attainment. Wherever club work has been pushed by our agents, larger vields have been obtained, better pigs have been raised and finer cattle, both dairy and beef, have been grown. The motto of the clubs is "To Make the Best Better." Registered animals are now common where only a few years ago they were unknown, and there is a systematic effort to cull scrub livestock and poultry. Large yields of crops have been made by club members on lands which were considered worthless, and little girls are vying with the best packers in canning and preserving fruits and vegetables, and are becoming a potent factor in helping to make the farm home more attractive and enjoyable.

The average yield per acre made by club members in the growing of field crops is two to three times as large as the average yields made in the States in which the members are located. Many people, seeing a boy or girl here and there engaged in club work, do not realize the value of the products produced by these young folks in the aggregate. In 1918, while under the stress of war, and responding to an appeal made to club members in furrows "over here," to help feed the boys in the trenches "over there", the records in the office show that these young people produced food and feed to the value of more than \$20,000,000.

The money value of the products of club members is only a small part of the value of club work. Many boys and girls have had their vision of life enlarged by club membership. Many have taken and are taking college training. The agricultural colleges of the country especially have profited in enrollment from the clubs. Many boys and girls have made their own money to defray their college expenses in club activities. after graduation have returned to the farms or have engaged in Extension Work as county agents. Rural life has been greatly enriched in recent years by the trained leadership obtained from agricultural clubs. The results obtained in this work justify many times the expenditures made in securing them and appeal strongly for a larger development of this very useful work.

A so-called training school for local leaders of canning and dening clubs is to be held on Saturday, June 12th, at the Practical Arts High School in Boston. This is an annual affair held in cooperation with Middlesex County and perhaps Bristol and Essex. It is a fine opportunity for leaders to receive help and inspiration for their summer's work. Norfolk County leaders should be sure to take advantage of it. interested in the work are cordially invited to attend.



ALL ROADS LEAD TO WALPOLE

County Agricultural Fair, Norfolk County Agricultural School, September 15 and 16, 1920

Prize money alloted by State Department of Agriculture

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NORFOLK COUNTY AGRICULTURAL AND HOME MAKING BULLETIN



HOME DEMONSTRATION TOUR ARRIVING AT THE NORFOLK COUNTY AGRICULTURAL SCHOOL

PUBLISHED BY

THE

NORFOLK COUNTY AGRICULTURAL SCHOOL WALPOLE, MASSACHUSETTS.

VOL. III

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No. 31



NORFOLK COUNTY AGRICULTURAL AND HOME MAKING BULLETIN

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VOL. III

July, 1920

No. 31

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TIMELY TOPICS

During the past month the Instructors from the School have visited nearly all the high and grammar schools in Norfolk County, giving an outline of the work being done by the School. We find many people who did not know that a school of this type was located in the County and many others who did not realize that the school was free to pupils of Norfolk County. This School, while giving courses in gardening, poultry husbandry, fruit growing and animal husbandry, also gives courses in English, mathematics, the sciences, etc. In fact, it gives a boy a good general education as well as a practical one. Tell your friends about the School and invite them to visit us. If you know a boy that would be benefited by a course of this kind drop us a line. We will call on him and give him further information.

Mr. Argood, Instructor in Poultry Husbandry, leaves for Amherst on June 28th where he will take an intensive course for four weeks in teacher training work.

STATE GRANGE FIELD DAY

Make your plans to attend the State Grange Field Day at the Norfolk County Agricultural School on Friday, August 20th. This will be a big public meeting for Grangers and their friends held under the auspices of a joint committee from Norfolk Pomona Grange No. 27 and Agricultural the Norfolk County National Master Sherman School. J. Lowell will give an address. he will speak in Massachusetts but three times this summer this will be the only opportunity for people in eastern Massachusetts to hear him. State Master Leslie R. Smith have charge of the meeting and Past Master Edward E. Chapman will lead the singing. Music, games and other entertainment will be furnished. Dinner will be on the basket picnic plan. Come and bring your friends

The boys with home projects and those working on farms or estates large gardens are getting valuable experience in vegetable All the home projects are growing. large enough and the variety of vegetables grown sufficient to give each boy practical experience in gardening The different conditions of locality and soils do not give all the boys an equal chance but the care of projects to date is very creditable and if the work is followed up thru the season with the same zeal and skill very profitable results will be secured.

As special work for the students while on their summer projects each one is to collect the life cycle of at least five insects and five plant discases. This will keep them alert to the rapid changes in plants and insects and give a practical application to the class room work.

The foundation is nearly complete for the addition to the Boarding House. This addition is 24×29 feet and will give accommodations for twelve more boys in the dormitory. The enlarged kitchen with its modern equipment and a new dining room wil? give us an up-to-date establishment enabling us to handle the increasing number of students in a satisfactory manner.

It has been suggested that we hold a number of potato spraying demonstrations for the control of the late blight and rot in different sections of Norfolk County. We will be very glad to do this and insofar as possible will try to conduct at least one in each of the different towns in the county. These meetings will be a success if you attend and bring as many others as you can.

At conferences of the School Staff the Course of Study for the coming year was outlined. Each subject will be more specifically developed later.

At a conference held at the Essex County Agricultural School on May 28th which Mr. Gilbert and Mr. Campbell attended the general topic "The Improvement of the Teaching of Related Science" was discussed and many valuable points brought out which will make these courses especially interesting to the students.

Several boys who are enrolling as students for next year are working on the School farm this summer to gain experience.

Edwin Anderson, besides carrying a very fine project in gardening, poultry and bee keeping at home, is working for the Fales Machine Company in Walpole, earning money that will aid him in carrying on his school work next year.

AGRICULTURAL DEPARTMENT

CONTROL OF FOTATO BLIGHTS AND ROT

After the enormous loss of potatoes last year due to the early and late blight and rot it seems that all of the growers in the County will be especially interested this year in thorough spraying to control these diseases.

Early blight appears in June or early July and is indicated by dark brown spots on the leaves. Early blight never ruins the crop but will decrease the yield. The blight fungus enters the leaf through the injuries caused by the flea beetle or other like pest.

Late blight is indicated by water soaked brown areas on the leaves. When the potatoes are blighting bad-Is if the margins of the blighting spots are examined on the under side of the leaves a white fungi may The disease also infests be seen. the tubers in the field, the fungus being washed into the soil causing a rot which may result in the loss of the entire crop. The blight develops very rapidly in muggy weather and is especially prevalent on low lands where the air drainage is poor. After the disease gets started there is no cure and the best thing to do is to leave the field until after all the tops are dead. Early digging will not save the crop for the spores of the disease will infect the tubers and cause rot in storage.

Sprays and Spraying

Bordeaux mixture is used for the control of blight and the resulting rot. It will not destroy insect pests unless some insecticide is used.

First spray—When the plants are about six inches high, or before if the bugs cause trouble, for early blight, Colorado and flea beetle use Bordeaux mixture 4-4-50 to which is added from 4 to 6 pounds of lead arsenate paste or three pounds powder. The paste contains more water than the powder

so should be used about twice as strong.

Second spray—Two weeks after the first spray, using same materials.

After the second spraying the plants should be kept well covered with material. This will require frequent sprayings. If the blight is very prevalent an application of 5-5-50 Bordeaux mixture will give better protection.

For aphids or plant lice it is necessary to use a contact poison which will kill the insect when it is touched. Since the lice are generally found on the under side of the leaves it requires a nozzle that will spray underneath.

For spray use Black Leaf 40, onehalf pint to fifty gallons of water. Two pounds of melted soap should be added to make the spray more adhegive

Bordeaux Mixture

Bordeaux mixture is composed of copper sulphate (blue vitrol), lime and water. These materials are combined in various proportions such as 4-4-50 or 5-5-50 mixture, depending upon the strength required. The first figure in each case indicates the pounds of copper sulphate, the second the pounds of lime and the third the number of gallons of water. The 4-4-50 mixture is the one most commenly used and to make the same the following directions should be followed:

- 1. Dissolve (by suspending in a coarse sack) four pounds of copper supphate in twenty-five gallons of water, using a wooden container.
- 2. Slake four pounds of live lime in a small container, adding water slewly until thoroughly slaked. Enough water should then be added to make the mixture the consistency of thick cream.
 - 5. This lime mixture should be

strained and enough water added to make twenty gallons. The copper sulphate dilute solution and the dilute solution of lime should then be poured together into a fifty gallon centainer. This mixture promptly and thoroughly mixed is ready to use ard should be applied at once.

When large quantities of Bordeaux mixture are required it is more convenient and economical of time to make stock solutions of copper sulphate and lime as follows:

- 1. Dissolve copper sulphate in a barrel at the rate of one pound of copper sulphate to each gallon of water. The sulphate should be suspended in a sack in the water over night.
- 2. Slake the fresh lime and dilute it to make a solution containing one pound of lime to each gallon of water.
- 3. To mix for spraying four gallons of the lime solution is strained into the spray barrel and made up to twenty-five gallons. Four gallons of the copper sulphate solution further diluted is poured in and the barrel filled with water to make up the five gallons. Stir the mixture and apply at once.

Precautions

The mixture should be properly prepared and the two ingredients diluted before mixing. Extra copper will burn the plants while too much lime tends to clog the sprayer. finer the spray and the greater the pressure at which it is applied the better. It is not necessary to have a large amount of the material on the plant but every square As the season should be covered. advances use more spray. For the first spraying fifty gallons per acre generally sufficient. but this This may should be doubled later. be done by using more nozzles or by going over the rows twice, once each way.

Results of Spraying with Bordeaux Mixture

Earl Jones, Extension Specialist in Field Crops of the Massachusetts Agricultural College, tells us that the use of Bordeaux mixture increases the crop even during those years when blight does not develop. The vines are more healthy and less injury from tip burn or flea beetle is experienced.

Pyrox and commercial Bordeaux mixture paste is very much higher in price than home made Bordeaux and also very much less effective in blight control. However, if it is impossible for the small gardener to make the mixture, a paste should be purchased containing not less than 9.5 per cent. copper or a powder of not less than 20 per cent.

Now is the time to begin to plan for fall seeding. An abundance of lime is a grand insurance for a successful stand of clover and at the present price of seed we cannot afford to seed down without some form of insurance. Why not order a car load of ground limestone in your neighborhood for fall delivery? Too many have suffered this season to chance another spring delivery of farm supplies.

Due to the backward season and the help situation it was impossible for many to attend the four spraying demonstrations held June 2nd and 3rd but all those who did attend went away feeling well satisfied that their time had been well spent. After each demonstration an informal discussion was started and questions asked and answered. The meeting held at the orchard of Mr. O. N. Mason of Wrentham was especially interesting 'Mason explained to Mr. us his methods of orchard management and answered all questions asked. We were very fortunate in having Mr. Van Meter with us as he is a recognized authority on fruit work,



Messrs. A. A. Boutelle. Canton: Sylvester Smith. Plainville: J. G. Sanderson, West Medway and R. Thomas, Medway are comparing commercial and home made Bordeaux this season for difference of spray cost and control of disease. Boutelle is going further than this and leaving a small check plot which will only receive poison. We will carefully tabulate the results of these tests and publish them in one of the autumn issues of the Bulletin.

Have you bought a box of new sections for your mowing machine knives? Is all of your having machinery in good shape, broken parts replaced and have you a good supply of forks on hand? This season, of all seasons, having must be pushed through without waste of man power and you cannot afford to take time to get parts or tools after having is well started. A horse fork, if you haven't already installed one, will prove a help.

A fine example of what top dressing with commercial fertilizer will do can be seen at the top dressing demonstration field on the farm of L. F. Fales in South Walpole. The plot was well staked and at this time a distinct line can be seen where the check plot begins.

KEEP YOUNG FRUIT TREES GROWING

Thousands of young apple trees have been planted in the state this spring. It will be interesting to watch their development. What will become of them?

It is perfectly plain that we cannot expect many apples until we get a tree big enough to carry them and the first few years should be devoted growing a tree, In this connection we have found nothing that will take the place of thorough culti-Push the trees hard. vation. tilize if necessary but cultivate first. It is not altogether a question fertility. If it was we could probably fertilize enough to grow grass and trees too. But trees cannot grow without sufficient moisture and the grass robs them at just the time when they need it most, about May 13 to July 1. Mature trees on an especially favorable type of soil can sometimes produce good crops in sod land but young trees, where wood growth is the objective, invariably demand cultivation.

POULTRY NOTES

CONTRAST BETWEEN HIGH AND LOW PRODUCERS

WM. C. MONAHAN

Good Layers

- 1. Moult late. When a hen stops laying in summer she usually moults. Good layers lay late, therefore moult late. Some hens, of the American breeds especially, lay intermittently thru the early stages of moulting.
- 2. Have a bleached appearance due to the loss of fat and yellow pigment. The yolk and body pigment are identical. Laying exhausts the body pigment. Vent, eyelids, beak and shanks fade in the order named
- 3. Have moist vent, open, pliable pelvic bores, prominent sternal processes and bright combs. The condition of the pelvic (lay) bones may be determined by feeling. On a laying hen they are open sufficiently to allow easy passage of an egg.
- 4. Evidence capacity in well developed abdomen and quality in soft, pliable skin. Egg production requires much food. The distended intestine and functional ovaduct fill out the abdominal cavity and increase the span between keel and pelvic bones.
- Possess constitutional vigor, freedom from physical defects, active disposition and friendly yet nervous temperament.

Watch the ventilation, especially in small brooder houses. Rear ventilation will do much to keep the coop cool.

There is tendency to let the poultry chores shift for themselves about this time of the year but those who "tend to business" will be well repaid for their diligence in better results next winter.

Poor Layers

- 1. Moult early. Poor layers quit early and, therefore, moult early. By fall they often have a smooth coat of new feathers as contrasted with the rough, ragged feathering of better layers.
- 2. Retain fat and yellow pigment. In poor layers the shanks continue yellow. A yellow vent is indicative that the bird is not laying. When a hen stops laying the pigment returns in the same order in which it left, viz., vent, beak and shanks.
- 3. Have puckered vents, close, rigid pelvic bones, receded sternal processes and limp, pale combs. When a hen is not laying her vent drys, the bones set and become covered with fat. Her comb shrivels and loses its bright color and waxy feeling.
- 4. Have little abdominal development and are often filied with hard fat covered by tight, coarse skin. The slacker, if healthy and well fed, usually fattens. The reproductive ard digestive systems shrink slightly and the body fills with fat.
- May or may not be healthy, are inclined to be wild or to show an inactive, sluggish dispostion.

See that you have plenty of infertile eggs to put down for your own use in winter. It will be true economy for you to do this and then sell the larger part of your fresh eggs at the high prices they are bound to bring next winter. These will give you just as good satisfaction and by selling the fresh eggs next fall and winter you can help your birds to show a greater profit.

HOME MAKING DEPARTMENT

HOME DEMONSTRATION AGENTS TOUR THROUGH FOUR COUNTIES

Federal, State, and County Leaders Visit Interesting Projects in South Eastern Massachusetts

On June 2nd Norfolk County had the honor of welcoming and starting on its way the first tour of Home Demonstration Agents in Massachu-There were 28 in the party. all interested in seeing the worthwhich while projects the Demonstration Agents in Barnstable, Bristol, Plymouth, and Norfolk Counties had arranged for them. Besides the State, County, and City Home Demonstration Agents, our party included Miss Van Hoesen from the Washington office, Mr. Willard, Director of the Extension Service in Massachusetts, Mr. Parker, County Agricultural Agent Leader, Miss Skinner, Dean of Women at the M. A. C. and Miss Hamlin, Agricultural Advisor for Women at the M. A. C Seven automobiles carrying the party were labelled with an American flag attached to the rear of each car. The cover picture on this bulletin shows the Home Demonstration tour as it approached the Norfolk County Agricultural School.

The three days' program was most enjoyable and instructive each project which was visited emphasizing different features of the work. fortunately the points of interest could not be selected from all parts of the county but since the time element was most important, it was necessary to choose the projects within a limited area. The trip was so much worth while that an attempt will be made to give you a general idea of the features visited.

The first day was spent in Norfolk and Bristol Counties. At 9.30 our party assembled at the Medfield Health Center to see the room which has been equipped to serve as a demonstration and information center in prenatal care, first aid, and

home nursing work, and to hear the public health nurse in that town explain the work that has been carried on there in cooperation with the Farm Bureau. An explanation of the organization of the school uental clinic for the Dover and Medfield School children was also given. Since the health center is in many ways a community room and has been used by the clothing efficiency group, we were able to show here also the development of local leadership in the clothing project and the work which the women have accompliched.

From Medfield we went to Dover where we saw the possibility carrying on a domestic science course in conjunction with a hot school lunch in a small town of 1200 in-The weighing and habitants. measuring of school children is being carried on in the school and we heard of the follow up work which the nurse is planning to do with the mal-nourished children. Some very interesting records were given by Mrs. Hopkins of Dover of the amount of seed which she has found that she needs to purchase each year to provide her family of eleven with enough green vegetables during the summer and to can 600 jars of vegetables, which they use during the winter months.

stop in Walpole The first made at the boys' dormitory at the Agricultural School where lunch was A short call was made at served. the Farm Bureau office to see the office equipment and the methods used in keeping records. The nutrition clinic at the Plimpton School was visited and Miss Chamberlain, nutrition explained School nurse, the nutrition work which the school

department of Walpole has introduced this year to correct the malnutrition among the school children. A most interesting demonstration was given by Mrs. Kilham in her home in Walpole showing the value of electrical devices and efficient arrangement of working equipment in the kitchen to save the time and strength of the housewife.

The Foxboro Thrift Center which has been organized for more than two years for the purpose of carrying on projects in home economics was the last place visited in Norfolk Here we saw the school lunch equipment which is used in the center in preparing the hot lunch for the two grammar schools and heard of the work in food conservation, preservation, hot school lunch, renovation and remodeling of efficiency clothing. and clothing which has been carried on there during the past two years.

From Norfolk County we went to Mansfield in Bristol County. The work of the Girls' Health League in this town was explained and the demonstration in washing and dressing a baby and preparing the baby's food was given very splendidly by two girls that had taken the health course. In North Rhehobeth we were taken to another home for the purpose of noting the kitchen arrangement and a unique cold closet for At 7:00 o'clock the storing food. party arrived at the Bristol County Agricultural School where we joyed a bona fide clambake beside the Taunton River.

After a good night's rest at the Taunton Inn an early start was made and at 8:30 the well baby clinic in Taunton was visited. The splendid preventive work which is being done by this clinic was explained by the nurse in charge. From here the tour moved on toward the Cape. A very attractive community center was visited in Middleboro and the chairman of the committee told us

briefly of the health and community activities that were being promoted in this center.

Our visit to the Old Colony Union in Bourne showed us the possibility of another type of a center where courses are given in handicraft and exceptionally fine articles of linen, raffia, etc., are made. A ready market for these products is assured by the guests that summer each year at the Cape. We were fortunate to pe able to visit the health center and district nursing headquarters in Falmouth for here we saw a most complete center which included school dental clinic and possibilities tor other health activities which can be promoted with a health center in a town. At Woods Hole the home of Mrs. Drew was visited to see especially the fine cellar storage for food which she has so carefully worked out. To demonstrate possibility of having the heat confusion of canning taken from the kitchen, we were taken to Clark's canning kitchen in Sandwich. In a small out-building which has been very simply fitted up, several hundred jars of fruits and vegetables are canned each summer for the family use.

The last day of the tour was spent in Plymouth County. For an hour in the early morning we visited historic Plymouth. Before leaving Plymouth we called at Mrs. Bittinger's home to see her air-cooled food At Kingston, Mrs. Dewing's home and Miss Holmes' farm and greenhouses were visited. The tour arrived at the immense plant of the Plymouth Cordage Co. at just noon, and after inspecting the very fine reading rooms rest rooms and took advantage of the excellent lunch which was served reasonable prices to the employees. A call was made at the Plymouth County Farm Bureau office in order to see the strong points of the office organization in that county.

tour broke up at the home of Mrs. Willis in Brockton where we were shown that attractiveness in the home arrangement need not be subservient to the arrangement for convenience for service.

It was a very interesting three day's program. Everyone felt that the time had been valuably spent and the many fine suggestions obtained from the neighboring counties will help to strengthen the work in our home counties.

COUNTY MARKET BUREAU

If you are in doubt as to where you can secure fruits and vegetables in quantity for canning, get in touch with the Home Demonstration Agent. There is on file at the Farm Bureau office a county market bureau and in this file we have listed the producers throughout the county of various fruits and vegetables. This bureau has been established for the use of the county people.

HELP NORFOLK COUNTY TO OBTAIN ITS QUOTA OF PRESERVATION REPORTS

These Records Are Requested by the Federal Office

In order to secure the appropriation of funds for the continuation of Home Demonstration work, it is necessary for the county Home Demonstration Agent to send to Washington definite reports of work accomplished by the women in her district. We know that as a result of demonstrations in canning and fruit preservation that the women of Norfolk County are doing large quantities of canning, but we have no definite records of the exact amounts.

We have guaranteed to send from this record and Norfolk County this year a report of to you promptly.

preservation work done in at least 500 families. These records are to be kept during the summer and returned to the Home Demonstration Agent by October 30th. In order to make it easy, the following cards have been printed and will be given to every woman in the county who is willing to keep this record during the preservation season.

Will you notify the Home Demonstration if you are willing to keep this record and a card will be sent

	Date
Name	. Address
Report of	Preservation
Fruit	Meat
Cannedgts.	Cannedlbs.
Driedlbs.	Smokedlbs.
Jelliesqts.	Saltedlbs.
Marmaladesqts.Jamsqts.Buttersqts.	Poultry Cannedqts.
Juicesqts.	Fish
Vegetables Cannedqts.	Saltedlbs. Cannedlbs.
Driedlbs. Saltedqts.	Eggs Preserveddoz.

WOMEN SHOW INCREASED INTEREST IN FARM BUREAU WORK

Twenty-five Towns are Represented at Sectional County Conferences



ENJOYING THE COUNTY CONFERENCE IN THE GROVE, LAKE PEARL

We like to feel that the people in Norfolk County belong to one large family and, like all families, they should have an occasional reunion to renew their acquaintance and talk over things which they are doing. For this reason we have formed the habit of holding Farm Bureau sectional conferences each year for the women who have been interested in the work which the Farm Bureau is furthering. The success of the conferences held one year ago have made us feel that they are really worth while to the women and to the It would be splendid if we could have the women from all parts of Norfolk County assemble in one meeting place, but with our poor transportation facilities we have found that sectional conferences in the eastern and western parts of the county can be better attended.

On June 10th we held our eastern Farm Bureau Conference at the Yacht Club in Wollaston. A morning

and afternoon program was arranged, emphasizing the subjects of preservation, health, and household accounts. Mrs. Irving Palmer, chairman of the thrift committee of the Federated Women's Clubs and Miss Marie Sayles, Asst. State Home Demonstration Leader discussed the subjects of thrift and household accounts. Miss Sayles used as a basis for her talk actual accounts that have been kept by women in Massachusetts during the past year. An inspiration for further work was brought to the women by Miss Comstock. Home Demonstration Leader, and Miss Van Hoesen who represented the Washington office of Home Demonstration work.

Dr. Loring Swaim who is one of Dr. Goldthwaite's co-workers had one hour on our program to discuss the important effects which clothing has upon the health of women. New suggestions in preservation and the possibilities of preserving with less

sugar were given bу Professor Chenoweth who is the authority in Massachusetts on the preservation of fruits and vegetables. The values of a health center in a community and a dental clinic for school children were discussed by Mrs. Cazneau, pubic health nurse in Medfield and Dover. Miss Edith Badger, Home Demonstration Agent in Quincy, spoke briefly of the market for preserved products which the Christmas sale of the New England Farm and Garden Association offers. Tentative plans for the first Norfolk County Agricultural Fair to be held at the Norfolk County Agricultural School, Sept. 15th and 16th were presented by the County Home Demonstration Agent.

An informal picnic lunch was enjoyed at noon on the veranda of the Yacht Club and at this time Norfolk County neighbors were given an opportunity to become acquainted with each other. There were 170 women present at this conference, 15 towns The being represented. splendid delegation of seventy-five women from the various districts of Quincy showed a marked increase in the interest of Farm Bureau work in that section since Home Demonstration work has been established in that city.

The western conference was held in the grove at Lake Pearl the following day, the same program being repeated for the women in this section of the county. Here we had an attendance of 81 women, representatives from 10 towns being present.

Mrs. Joseph Leach, chairman of the Home Economics Council of the Home Making Department of the Farm Bureau, presided at both conferences. We feel that Mrs. Leach contribtued to the success of the meetings and we were glad to give the Norfolk County women an opportunity to meet her. The interest and appreciation which the women expressed have made it seem that these conferences are valuable in the organization of our Farm Bureau

work. At the two conferences there was a total of 250 women present, representing twenty-three of the twenty-eight towns in the county.

ITEMS OF INTEREST

Women in Norfolk County will be glad to know that Miss Marie Sayles who is a specialist in household account work at the Massachusetts Agricultural College has found that the best and most complete household account record in the state has been kept this past year by a Norfolk County woman. The Agricultural College has borrowed this book and has asked permission to copy it to use for exhibition purposes throughout the State.

Miss Van Hoesen from the Washington office which has the supervision of Home Demonstration Work in the thirty-three northern and western states attended our Farm Bureau Conference at Wollaston. In a short talk which she gave to the women she stated that our Wollaston conference was the largest Farm Bureau conference she had ever attended during her two years' experience in Federal Home Demonstration Work.

Out of the twenty-eight towns in Norfolk County the only towns that were not represented at either of our sectional conferences June 10th or 11th were Avon, Dover, Medway, Norfolk, and Stoughton. This means that we had an attendance of 89%. Next year let us try to make it 100%.

Here is a suggestion that Miss Badger has sent as a help in keeping your preservation records. Attach a card to the shelf or door of your preserve closet and on this card record the number of jars, quarts and pints, of different products as you put them in the closet. A record may also be kept of the jars used which will help you in taking an inventory at the close of the season.

JUNIOR EXTENSION DEPARTMENT

HOME ECONOMICS AWARDS

Final judging in the Home Economics contest placed the winners as folows:

Bread--

1st—Mildred Schwing, Franklin. 2nd—Elizabeth Curley, Needham. Garment Making—

1st—Arlene Hannaford, East Weymouth.

2nd-Frances Kroll, Needham.

Several other town winners gave these people a hard rub. In bread Martha Findlen, and John McDonald of Dedham and Miriam Davis of Braintree were in the final judging. For garment makers Grace Darling, Foxboro; Alice Fay, Weymouth; Bessie Cummings, Franklin, and Alice Rosnosky of Randolph had the honors of a county tryout.

Our Prize Winners at the M A. C. Camp

The prize winners camp for county champions in club work will be held on the campus of the Massachusetts Agricultural College at Amherst July 24th through July 31st.

Norfolk County will be represented by six club winners. Marion Curlcy of Cohasset is our Canning Club representative. Mildred Schwing of Franklin and Arlene Hannaford of East Weymouth represent the bread and garment sections of Home Economics work.

Max Greenberg of West Medway will be our garden delegate. Canton sends George Clark as poultry champion and Harry Howard of Walpole will represent the Pig Club.

A new poultry primer has recently been received from M. A. C. and has already been sent to poultry club members. Two of the pictures in the primer show Norfolk County members in their poultry club work.

Strawberry Jam

or measure the hulled berries. Thoroughly wash and drain off excess water. Place in preserv ing kettle, crush a few or all of the berries. Heat gently until the juice flows freely. Then boil rapidly stirring frequently until the product begins to thicken. Add sugar equal to 1/3 or 1/2 the weight of fruit used and continue to boil, stirring constantly until the desired consistency is obtained. Fill into sterilized jars and hermetically seal at once.

Use the same method for jams from raspberries, blackberries and blueberries.

Strawberry Preserves

For extra fancy preserves use only the large firm fruits. Hull, weigh, and wash thoroughly. Weigh out sugar equal to one half the weight of the berries. Place the berries and sugar in alternate layers in a cooking vessel, reserving enough of the sugar to cover last layer of berries. Cover the vessel and set aside for several hours or over night.

Set the kettle over the fire and Continue bring to the boiling point. to boil for 5-10 minutes. Do not stir. Remove from the fire and allow to stand for 3 or 4 hours. berries from the syrup by pouring into a colander. Set the juice on the fire and boil until about as thick as desired. Add the berries and boil for a few minutes or until the syrup is as thick as wanted. Pour into sterilized glass jars and hermetically seal.

Emphasis this summer is being laid on proper spraying for the control of insects and diseases. We plan to give spraying demonstrations wherever the demand warrants, hoping in this way to help toward a larger yield from club gardens.

EASTERN MASSACHUSETTS CLUB LEADERS' SUMMER CONFERENCE

The Club Leaders of Norfolk, Middlesex and other Eastern Massachusetts Counties met for a conference in the Practical Arts High School of Boston on June 12th, 1920. In the morning there was a general meeting for the discussion of the club program for 1920. The afternoon was taken up with sectional meetings in canning and gardening.

Norfolk County was represented by Miss Helen Findlen, Junior Club Leader of Dedham, who gave a very interesting talk on the experiences of a club leader. The members of the "All Hands Stick Club" of Dedham in charge of Miss Montieth gave a The boys and mock club meeting. girls certainly showed the ability to carry out a complete business meeting and the demonstration of bed making was very instructive and valuable.

Mr. Farley, State Club Leader, outlined briefly the club program for 1920 at the morning session. This year, more than ever before, club work is being recognized as a necessary element by the people in the community as well as by the Government.

At the afternoon meeting Miss Currier from Rhode Island gave a very interesting talk on the methods used in her state and outlined in brief the history and growth of the club work there.

Mr. Jenks of Middlesex County spoke to the garden club leaders on insect pests and diseases.

The program for the day was as follows:

10.00 A. M.

Introductory Remarks—Club Requirements

John T. Dizer, Norfolk County Club Agent, presiding.

Mock Club Meeting

Members of the "All Hands Stick" Club of Dedham.

Experiences of an Achievement Club Director

Director

Murton Fullor Wakefield

Club Songs

The State Club Program

George L. Farley, State Club Agent. Experiences of a Junior Leader

Helen Findlen, Dedham.

An Allegorical Sketch

Members of the Southern Junior
High Home Economics Club,
Somerville.

Staging the Fall Achievement Program Robert P. Trask, Middlesex County Club Agent.

1.00 P. M. Canning Club Section. Introductory Remarks

Mrs. Dorothy S. Waterhouse, Ass't Club Agent, Middlesex County, presiding.

Summer Meetings for Canning Clubs Miss Marion Forbes, Framingham Club Leader.

How It Is Done In Rhode Island
Miss Alice L. Currier, Pawtucket,
Rhode Island.

Training a Canning Judging Team Miss Susan Roundy, Assistant Club Agent, Norfolk County.

Points on Training a Canning Demonstration Team

Miss Helen Norris, Assistant State Club Agent.

Staging a Successful Demonstration Rose Segal, Malden, Member Eastern States Champion Team.

1.00 P. M. Garden and Potato Club Section

Introductory Remarks

Robert P. Trask, Middlesex County Club Agent, presiding

Insect Pests and Diseases of the Garden

Albert R. Jenks, Middlesex County Horticultural Agent.

Problems in Potato Growing

Herbert A. Rose, Agricultural Agent, Norfolk County

The Right Way to Make a Home Visit William F. Howe, Assistant State Club Agent.

Points on Training a Demonstration

John T. Dizer, Norfolk County Club

County Agricultural Fair

Mark your calendar for September 15th and 16th. County Agricultural Fair—two days—at the Norfolk County Agricultural School. Something of interest every minute from sunrise to sunset. The August issue of the Bulletin will be devoted largely to Fair news. Be sure and read this number.

NORFOLK COUNTY AGRICULTURAL AND HOME MAKING BULLETIN



ARE YOU GETTING READY
FOR THE
NORFOLK COUNTY FAIR
SEPTEMBER 15TH AND 16TH?
I AM

PUBLISHED BY

THE

NORFOLK COUNTY AGRICULTURAL SCHOOL WALPOLE, MASSACHUSETTS.

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AUGUST, 1920

No. 32



NORFOLK COUNTY AGRICULTURAL AND HOME MAKING BULLETIN

Entered as second class matter June 7, 1917, at the Post Office at Walpole, Mass., under the act of August 24, 1912.

VOL. III

August, 1920

No. 32

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SUSAN ROUNDYASST.	BOYS' AND	GIRLS'	CLUB .	AGENT

TIMELY TOPICS

The following boys have signed their application to enter the Norfolk County Agricultural School this fall: Bellingham—Harold E. Cook. Braintree—Harold J. Chick. Canton—Henry E. Davenport, Charles

Thackwray, Arthur Beatty and Walter E. Beckwith.

Dedham-Clarence H. Chute.

Foxboro—Harland B. White and Lester Tripp.

Hopkinton-Henry A. Pyne.

Hyde Park—Francis J. Ryan and Raymond Lancaster.

Jamaica Plain—Ralston F. Quinn. Medfield—Alfred La Rue.

Millis-Edmund T. Stuart.

Milton-Wallace Garrett, Fred V.

Richards, William McAuley and Raymond Fallon.

Needham—Lawrence Parker, Arthur Warren, Jr., and Ralph Quint.

Norwood—Edgar W. Ross and John J. Sullivan.

North Attleboro—Roger T. Weller and Richard K. Morse,

Randolph—John Malloy and James L. Mahan.

Sharon-Edward S. Belden.

Staughton—Isado e Kavolesky and Leroy C. Newton.

Walpole—Henry Barrows.

Wellesley—George B. Welch, Jr.
Where is your application blank?
Have You done your part in inter-

esting some boy in the School?

POULTRY FIELD MEETINGS

We are very glad to announce the dates of our two Poultry Field Meetings.

August 12th—Plant of Z. A. Norris, Dedham Avenue, Needham.

August 13th—Plant of F. H. G. Morse, Bay Street, Stoughton.

Prof. Monahan of the Massachusetts Agricultural College, who is recognized as one of the best poultry disease specialists in the country, will be the main speaker and will discuss the different diseases and their control. Mr. Argood, Poultryman at the Norfolk County Agricultural School, will give a culling demonstration and Messrs. Norris and Morse have promised to tell us their methods of poultry management. We hope to have every poultryman in Norfolk County present at one or both of these meetings. Come, and if you have a car, bring your neighboring poultrymen.

STATE GRANGE FIELD DAY

State Grange Field Meeting at Norfolk County Agricultural School.

Walpole—Friday, August 20th, 1920 Speakers—National Master, Sherman J. Lowell; State Master, Leslie R. Smith.

Singing by Past State Master, Edward E. Chapman.

Sports for silver cups.

Ball Game—School nine versus best Grange team in Massachusetts.

Games at 10.30.

Basket Lunch at 12.30 (Dinner will be served in the new barn at 60c per plate for those who notify the School not later than August 18th).

Speaking at 2.00 P. M.

Music by Orchestra.

Everyone welcome.

Come and be one of a thousand.

COUNTY FAIR HISTORY

A number of people forming a Committee interested in having a county-wide agricultural fair at the Norfolk County Agricultural School in the fall of 1920 assembled at the School on Wednesday evening, June 23rd. Mr. E. H. Gilbert was elected Chairman and Miss Ethel L. Kennedy Secretary of the Committee.

Mr. Gilbert gave a brief history of the old Norfolk Agricultural Society which was organized at a meeting held at Temperance Hall in Dedham on Wednesday, February 7th, 1849, with Marshall P. Wilder of Dorchester as President. This Society flourished for several years, holding successful fairs at the fair grounds in Dedham and later moving to new grounds in Readville. Early in the seventies people began to lose interand finally the fair was abandoned, the grounds sold and the Society dissolved.

Realizing the need of awakening interest in producing larger quantities of food stuffs, it was with a feeling that a fair for educational purposes would be a help in this direction that this meeting was called. After some discussion of fairs as held in other sections of the state, it was voted to hold a county-wide agricultural fair along agricultural and educational lines on September 15th and 16th at the Norfolk County Agricultural School.

It was voted to elect an Organization Committee of five members to take charge of the Fair and appoint the various committees and Ernest D. Waid, Mrs. Joseph Leach, Willard A. Munson, Miss Sarah E. Brassill and Ernest H. Gilbert were elected. It was also voted to appoint Town Committees in every town and city of Norfolk County. The Organization Committee, with the Chairmen of the Department Committees, shall make up the Executive Committee

for the Fair. Each Town Committee will hold at least one meeting at which some member of the Executive Committee will endeavor to be present. The members of the teaching staff of the Agricultural School were appointed as a Committee to look after the arrangement of grounds. location of booths for exhibits and refreshments, general entertainment, etc.

The Trustees of the Norfolk County Agricultural School have appropriated \$400.00 for prizes and expenses and the State Department of Agriculture has made an appropriation of \$100.00 to be used for prizes.

The following Committees have been appointed:

EXECUTIVE COMMITTEE

Ernest H. Gilbert, Walpole, (Chairman).

Ethel L. Kennedy, Walpole, (Secretary).

Evan F. Richardson, Millis,
Ernest D. Waid, Walpole.
Mrs. Joseph Leach, Walpole.
Willard A. Munson, Walpole.
Sarah E. Brassill, South Weymouth.
Herbert A. Rose, Walpole.
Stella S. Simonds, Walpole.
John T. Dizer, Walpole.
Susan Roundy, Walpole.
Edwin T. Cobb, Walpole.
Edwin T. Cobb, Walpole.
Edith C. Badger, Quincy.

PUBLICITY COMMITTEE

Ernest H. Gilbert, Walpole, (Chairman).
Charles W. Kemp, East Weymouth.
Evan F. Richardson, Millis.
Herbert A. Rose, Walpole.
Stella S. Simonds, Walpole.
John T. Dizer, Walpole.
Susan Roundy, Walpole.
Malcolm D. Campbell, Walpole.
Roy T. Argood, Walpole.

COMMITTEE ON GROUNDS

Malcolm D. Campbell, Walpole. Roy T. Argood, Walpole. Samuel Knowles, Walpole.

Samuel Knowles, Walpole.

Charles F. Quimby, Walpole,

SOLICITING COMMITTEE

Ernest D. Waid, Walpole.
Joseph S. Leach, Walpole.
Arthur Benson, Dedham.
L. W. Wheeler, Medfield.
Herbert A. Rose, Walpole.
John T. Dizer, Walpole.
Charles W. Kemp, Weymouth.

TOWN COMMITTEES

Avon
P. E. McGonnigle

Mrs. E. C. Glover Bellingham

Warren Whiting Mrs. Harry Chase, R. F. D., Medway Mrs. Walter Cook

Braintree

Harry Arnold

Mrs. George Elsworth, 117 Adams Street

Miss Ruth Bennett, South Braintree

Brookline

Willard A. Ward, 69 School Street Miss Elizabeth Lewis Dr. Everett M. Bowker Patrick O'Loughlin

Canton

Albert A. Boutelle Mrs. Albert A. Boutelle Miss Elsie Owen, Pleasant Street John C. Davis

Cohasset

Walter Kerr, Oaks Farm

Mrs. O. H. Howe M. H. Meyer

м. п. ме

Dedham

A. P. Benson Mrs. O. Benson Leland Graff Henry Bingham

Dover

Chester Hyman Mrs. J. C. Hopkins

Foxboro

Walter Mann Mrs. Mabel Swift Mrs. I. W. Reynolds

Franklin

E. B. Parmenter Mrs. Annie Dunn Charles B. Lamb Holbrook

Frank B. Brooks

Mrs. Frank B. Brooks

Miss Dorothy Boardman

Medfield

Leon E. Mayo, Medfield State Hospital, Harding

Mrs. P. H. Leahy

Medway

J. G. Sanderson, West Medway

Mrs. O. T. Mason

J. G. Anderson, West Medway

Millis

Edward Adams

Mrs. Evan F. Richardson

Mrs. R. F. Ingraham

Milton

Andrew K. Rogers

Mrs. Wallace Tucker

Needham

John M. Dennie

Mrs. Roy West

Claire V. Heald, Needham Heights R. W. Healy, Bradford Street

Norfolk

E. A. Glass

Mrs. Preston Day Miss Ruth Hill

Norwood

Fred L. Fisher

Miss S. P. Wheelock

A. N. Ambrose

Plainville

Sylvester Smith

Mrs. O. L. Shubert

Mrs. M. L. Corbin

Quincy

F. E. Brooks, Atlantic

Mrs. O. B. Blaisdell, 126 Grand View Avenue, Wollaston

A. L. Barber

John F. Merrill

Randolph

Lincoln Stetson Mrs. F. W. Bancroft

Charles R. Powers, Jr.

Sharon

Edward H. Belden

Mrs. L. A. Weston

Stoughton

Chester B. Turner

Mrs. W. B. Southworth

Mrs. Frank Smith

Walpole

Ernest D. Waid

Mrs. Ernest D. Waid

Ralph Westcott

Wellesley

F. D. Woods

Mrs. Theodore Rollins

Weymouth

Bowdoin Smith, South Weymouth

Charles L. Merritt, South Weymouth

Mrs. A. E. Barnes, South Wevmouth

Miss Sarah E. Brassill. South Wev-

mouth

Westwood

Granville Perkins

Mrs. E. J. Baker

Miss Marion H. Fisher

Wrentham

Fred Gilmore

Mrs. E. B. Mayshaw

Miss Nelli: Cumming

EDUCATIONAL DEMONSTRATIONS AND CONTESTS

Tractor demonstrations-Garden and field tractors.

Educational Exhibit of Cattle.

Poultry culling, killing, disease control demonstrations, etc.

The towns' fair committees are listed in another part of bulletin. Find out who is representing your town, get in touch with them and let them know what you will exhibit in the county fair.

All entries for exhibits in the fair must be made before Sept. 10. Blanks may be obtained from the town representatives or the County Agricultural School.

Arrangements have been made for the allotment of space for the different exhibits, refreshment booths, pulling and plowing contests, entertainment and auto parking at the Norfolk County Agricultural Fair, September 15th and 16th.

AGRICULTURAL DEPARTMENT

NORFOLK COUNTY AGRICULTURAL FAIR

It has been brought to your attention from time to time that there is to be held at the Norfolk County Agricultural School on September 15th and 16th a real agricultural fair for the farmers of Norfolk County. Every minute of the two days will contain something to interest to farmers, market gardeners, dairymen and poultrymen.

There are three ways for you to

make your first County Fair a success—advertise, send your exhibits—and attend yourself, bringing as many others with you as you can. The agricultural program and premium list contained in this issue of the Bulletin may be secured for personal distribution by writing to the Norfolk County Agricultural School, Walpole, Massachusetts.

PREMIUM LIST

Fruit Exhibits

- 1. All exhibits must be grown by exhibitor. Commercial varieties listed will receive cash premiums. Other varieties may be shown but will only receive ribbons or other honorable mention.
- 2. Fruit preferably should not be polished but polished fruit will not be disqualified.
- 3. All plates must be correctly labelled.

Score Card For Apples and Pears

Whether the fruit is actually scored or not the following score card shall be the basis on which plates shall be judged:

Č	50u.	
	Form	10
	Size	10
	Color	20
	Uniformity	20
	Quality	15
	Freedom from blemishes	25
	Total	100

Fruit

- 1. Form should be smooth, regular and typical for the variety.
- 2. Size—Uniform but not over

- large nor yet too small.
- 3. Color
 - a. Depth and attractiveness of ground color.
 - b. Characteristic over color.
 - c. Amount of over color.
- Uniformity—Specimens shall be of the same form, size, color and ripeness.
- 5. Quality—This shall include both texture and flavor.
- 6. Freedom from blemishes. This shall include:
 - a. Mechanical injuries, including loss of stem.
 - b. Insect injury of all kinds.
 - c. Diseases from fungus or any other cause.

In judging collections the following points shall be considered:

- a. Value of the variety for purpose stated.
- b. Excellence of the specimens as judged by the score card.

In case of protest, made in writing by any exhibitor, the judge shall reconsider his award, state reasons for his action and the decision shall be final.

Fruit			
Apples	\mathbf{F} irst	Second	Third
1. Collection—5 or more plates	Prize	\mathbf{Prize}	\mathbf{Prize}
Commercial Varieties	\$8.00	\$3.00	\$1.00
2. Plates of five apples			•
a. Baldwin	2.00	1.00	Ribbon
b. McIntosh	2.00	1.00	**
c. Gravenstein	2.00	1.00	44
d. Northern Spy	2.00	1.00	"
e. Wealthy	2.00	1.00	"
f. Rhode Island Greening	2.00	1.00	"
g. Delicious	2.00	1.00	65
Crab Apples			
1. Plate of twelve specimens	2.00	1.00	
Pears			
1. Collection of five standard varieties	5.00	3.00	1.00
2. Plate of each variety listed			
a. Anjou	2.00	1.00	
b. Bartlett	2.00	1.00	
c. Bosc	2,00		
d. Clapp's Favorite	2.00	1.00	
e. Seckel	2.00	1.00	
Peaches—Plate of ten, any standard variety	2.00		
Plums—Plate of ten, any standard variety	2.00		
Grapes—Collection of five or more varieties	5.00		
Plate of clusters—standard varieties	2.00	1.00	
	2.00	00	

THE MASSACIIUSETTS DEPARTMENT OF AGRICULTURE OFFERS THE FOLLOWING PRIZES

2 02-0 // 20 0	*	
Vegetables		Second Third Prize Prize
1. General display of standard vegetable	es \$8.00	\$3.00 \$1.00
Grown by exhibitor		
VARIETY EXHIBIT	\mathbf{T}	
Beans—Bush 20 pods		
1. Dwarf Wax	\$2.00	\$1.00
2. Dwarf Green Pod	2.00	1.00
3. Dwarf Shell	2.00	1.00
Beans—Pole		
1. Kentucky Wonder	2.00	1.00
2. Pole—Shell	2.00	1.00
Beets—5 specimens		
1. Crosby's Egyptian	2.00	1.00
2. Edmunds	2.00	1.00
Cabbage—3 specimens		
1. Early round headed type	2.00	1.00
2. Late round headed type	2.00	1.00
3. Red	1.00	.50
4. Savoy	1.00	. 50
Carrots—5 specimens		
1. Early varieties	2.00	1.00
2. Danvers half long	2.00	1.00
3. Other varieties	2.00	1.00

Cauliflower			
1. Early snowball	2.00	1.00	
Celery—3 plants with roots	2.00	1.00	
1. General exhibit	2,00	1.00	
Corn—Sweet, 6 ears with husk		2.00	
1. Yellow	2.00	1.00	
2. White	2.00	1.00	
Cucumbers—3 specimens		1.00	
1. Standard variety	2.00	1.00	
Muskmelons—3 specimens		1.00	
1. Standard variety	2,00	1.00	
Onions—6 specimens	2.00	1.00	
1. Standard Variety	2.00	1.00	
Parsnip—5 specimens	2.00	1.00	
1. Standard variety, named	2,00	1.00	
Peppers—5 specimens	2.00	1.00	
1. Standard variety, named	2.00	1.00	
Pumpkins—3 specimens	2.00	1.00	
1. Sugar	1.00	.50	
2. Field	1.00	.50	
Squash—3 specimens			
1. Summer crookneck	1.00	.50	
2. Turban type	2.00	1.60	
3. Golden Hubbard	2.00	1.00	
4. Green Hubbard	2.00	1.00	
5. Blue Hubbard	1.00	.50	
TomatoesMarket type, 5 specimens			
1. Early variety—soft	2.00	1.00	
2. Late stone type	2.00	1.00	
Turnip—5 specimens			
1. White Egg	1.00	. 50	
2. Rutabaga	1.00	.50	
Potatoes	2.00	•00	
Any standard variety—5 specimens	1.00	.50	
Seed Corn and Other Field Seeds	2.00	•00	
1. Collection six ears standard variet	***		
sweet corn	•	.50	Ribbon
2. Traces of 25 ears	\$1.00	. 30	попоп
a. 8 row Flint corn	1.00	.50	
b. 12 row Flint corn	1.00	.50	
c. Dent corn	1.00	.50	
d. Pop corn	1.00	.50	
Field Seeds	1.00	. 50	
1. Peck of			
a. Barley	1.00	.50	
b. Buckwheat	1.00	.50	
c. Oats	1.00	.50	
d. Rye	1.00 1.00	.50	
Poultry Exhibit	1.00	.00	
Eggs	First	Second	Third
		Prize	
Best dozen—White	\$2.00		
Best dozen—Write Best dozen—Brown	2.00		
Dest dozen—Diown	2.00	, 1.00	

Color, uniformity, size and freshness will be considered in judging.

Dressed Poultry

Best dressed fowl.

5.00 2.00 1.00

Quality of meat, plumpness of breast, texture of skin, appearance and general commendable excellence will determine the award. Market poultry should be dry picked, undrawn and head and feet left on. No food should be in crop or in intestines.

	Floral Exhibit	First S	Second	Third
		\mathbf{Prize}	Prize	Prize
1.	Best Collection Cut Flowers	\$2.00	\$1.00	Ribbon
2.	Collection of	1.00	.50	
	a. Sweet Peas	1.00	.50	
	b. Nasturtiums	1.00	.50	
	c. Asters	1.00	.50	
	d. Dahlias	1.00	.50	
	e. Gladioli	1.00	.50	
	f. Wild Flowers	1.00	.50	
	g. Potted Plants	1.00	.50	

PLOWING MATCH

(Two classes-

Swivel and sulky plows)
First Premium . . . \$10.00
Second Premium . . . 5.00

No person will be entitled to more than one premium and when entering must state in which class he wishes to compete. Each contestant must plow one-eighth acre within one hour, plowing to be between five and seven inches in depth and must show a level bottom.

Guide for judging—Good plowing consists of turning the soil with nice,

even, clean and straight furrows of rounding conformation.

The following points will be considered:

Opening furror	ws		30
Conformation	of.	furrows	25
Straightness			20
Eveness			15
Neatness			10

Total 100

The judges of plowing will settle all disputes and their decision shall be final.

A MARKET FOR HOME PRODUCTS

The Only Requisite Being A High Quality of Goods

For the past three years, the New England Branch of the National Farm Garden Association has held a Christmas sale to which women have sent various products which they wished to sell. At the previous sales canned products, preserves. butter, eggs, homemade sausage, poultry, guinea chickens, turkeys, Christmas honey, maple sugar, wreaths. flowering plants, baskets, cones, lavender for sachets, dried flowers and driftwood for the open fires have been sold. of 10% has been charged by the Farm Garden Association as their commission in handling the products. All goods must be carefully labelled and of a good quality. It has developed in several cases that women have established a permanent market for their products among the patrons of the first year. This makes it possible for the producer to sell directly to the consumer.

If you are interested to have more information; regarding this Christmas sale, will you not write directly to the New England branch of the Women's National Farm Garden Association, 4 Joy St., Boston, or to the County Home Demonstration Agent.

HOME MAKING DEPARTMENT

NORFOLK COUNTY TO HOLD ITS FIRST COUNTY FAIR

Agricultural School in Walpole Chosen as A Favorable Site.

September 15th and 16th are the days chosen for the Norfolk County Agricultural Fair. It is our first Fair and as residents of the County we are interested to make it a success. It is our purpose to make it an educational fair and the prize lists have been drawn up with this in view. In the Home Making Department we are trying to arouse town pride by offering

a prize for the best canning exhibit assembled in a town. We want this to be a large exhibit with at least two-thirds of the towns in the county represented. This is an excellent way of developing community spirit. There are two ways of making the fair a success: send your exhibits and attend the fair.

Following is the competitive prize list for the Home Making Department:

Food

		First Prize	Second Prize
1.	Best exhibit of canning (Towns)	\$10.00	\$5.00
2 .	Best exhibit of canned vegetables		·
	6 jars—6 varieties	5.00	2.50
	Uniform size of jars required		
3.	Best exhibit of canned fruit		
	5 jars—5 varieties		
	Uniform size of jars required	5.00	2.50
4.	Best exhibit of jellies		
	3 jars—3 varieties	3.00	1.50
5.	Best loaf of white bread with recipe	4.00	2.00
6.	Best loaf of raised bread of mixed flours with		
	recipe	4.00	2.00
7.	Best exhibit of six tried recipes for fireless cooker	5.00	2.50
8.	Best exhibit of recipes which will utilize a 5 pound flank steak to the best advantage for a		
	family of four for the greatest number of meals		2.50
9.	Best Pie	3.00	1.50
10.	Best loaf of cake with recipe (No more than 3		
	eggs used) Layer cakes excluded	3.00	1.50
Cloth	ing		
1.	Best exhibit by town groups of the three garments made in the elementary clothing $% \left(\frac{1}{2}\right) =\frac{1}{2}\left(\frac{1}{2}\right) $		
	ciency course	5.00	2.50
2.	Garment showing the best development of the		
	elementary clothing efficiency course		
	(Individuals)	4.00	2.00
	ehold Management		
1.	Best homemade labor saving device	5.00	2.50
2.	Best family budget estimated from a six months		
	record of expenditures	5.00	2.50
3.	Snapshot and plan showing the most efficient ar-		
	rangement of working equipment in the kitchen	1.5.00	2.50

Handieraft

1.	Best exihbit of crocheting made during the cur-		
	rent year	3.00	1.50
2 .	Best exhibit of solid embroidery made during the		
	current year	3.00	1.50
3.	Best exhibit of eyelet embroidery made during		
	the current year	3.00	1.50
4.	Best home made rug	5.00	2.50
5.	Best patch work quilt	6.00	3.00

EDUCATIONAL EXHIBITS

Household Management

- 1. Exhibit and demonstration of electrical equipment (washer emphasized).
- 2. Labor Saving Equipment.

Clothing

- 1. Garment made from feed sacks.
- 2. Mrs. Reed's exhibit in placing and cutting garments to advantage.
- 3. Mrs. Reed's exhibit in showing harmony in color.
- 4. Clothing Exhibit from Miss Blanchard.
- 5. Exhibit of healthful shoes from W. Y. C. A.

Health

County health charts used in schools.

Mothercraft exhibit from Miss Dick-inson.

State Board of Health.

Food

- 1. Milk exhibit.
- 2. Equipment for serving a warm school lunch and pictures of lunches in operation.

Organization

- 1. County Map
- 2. Individual Project Maps.

HOW TO WIN THE FIRST PRIZE

Some of the Points Considered By Judges

Canning

Appearance of the Jar

1. External

Naturally the external appearance of the jar is the first point which attracts the eye of a person in judging the quality of the canned product. Where several jars are included in an exhibit they should be of uniform size and the jars of the same make and style if rossible. The jars should be clean and neatly labeled having the labels of the same size and shape, placed on the jar in the same position, and neatly written containing the name of the product, the year when canned and the name of the person canning it.

2. Pack

Consideration is given to the care

used in packing the product in the jar which contributes largely to the attractive appearance of the exhibit.

Quality of the Product

1. Size of Fruits or Vegetables

Whole fruits or vegetables canned for exhibit should be of the size most acceptable for table use. Generally large fruits and small vegetables are considered the best. Fruit or vegetables of suitable size to can whole are graded highest, those cut in halves grade next and those in slices still lower. The slices should be of uniform size and shape.

2. Peeled and Cored

Fruits and vegetables which are improved by peeling, pitting, and coring should be handled in this way in order to be favorably considered.

3. Texture

Fine texture is characteristic of a high grade fruit or vegetable. Tough, fibrous, and withered products do not score high. Loss of shape in the product from over cooking, also reduces it in the grade.

4. Color

The natural color of the product when it is in its prime is the standard of the high grade pack. Decayed spots, rust or decoloration due to sunburn scores against the product.

5. Quality of Liquid

The liquid in the jar should be clear, free from sediment and with no milky appearance.

Quantity of Product in Jar

If properly blanched and packed the product should fill the jar after sterilization up to within one half of an inch of the top. The liquid and fruit should be in such proportion that they would serve well.

SCORE CARD FOR CANNED FRUITS AND VEGETABLES

Appearance	25
Color	
Clearness	
Texture	10
Flavor	20
Uniformity	15
Ripeness	
Appropriate size	
Pack (arrangement)	15
Container	15
Appropriate package	
Label	
Neatness	

Total

About 9 by 4 by 4

100

SCORE CARD FOR BREAD

	_		
General Appearance			20
Shape	•		
Oblong, uniform	height	in	all
parts			

Crust

Uniform golden brown, crisp, crackly and smooth.

Flavor

35

Taste and Odor

Sweet nutty flavor and odor, no suggestion of sourness or taste of yeast

Crumb

30

Texture and grain

Tender but not crumbling, fine mesh of equal size throughout. Moisture

Slightly moist, yet springy and elastic when pressed lightly with the finger.

Color

Creamy white, not snowy white Lightness

Well raised, equally light throughout, absence of heavy spots or streaks, not heavy for size.

Total

100

15

SCORE CARD FOR HOMEMADE CONVENIENCES AND DEVICES

General Use	20
Suitability to purpose	35
Practicability	35
Appearance	10
Total	100

Can you compete in one or more of these divisions

FOOD?

CLOTHING?

HOUSEHOLD MANAGEMENT? HANDICRAFT?

Consult the premium list printed here and prepare your exhibit now.

JUNIOR EXTENSION DEPARTMENT

PREMIUM LIST

Exhibits in the Junior Department must be produced and exhibited by the owner and must be the result of this year's work. In all cases the judges reserve the right to withhold prizes where the exhibits are not worthy and to make extra classes if exhibits warrant. The decision of the judges will be final. Exhibitors, by showing, signify their agreement to these conditions.

GARDEN PRODUCTS

Best display of vegetables from any town in Norfolk County

Limited to eight square feet

Prizes \$7.00 \$5.00 \$3.00 \$2.00 Best display by an individual Club member

Limited to eight square feet

Prizes \$7.00 \$5.00 \$3.00 \$2.00

Best individual collection of five different vegetables

Five, of a kind except in squashes and large vegetables where one will be accepted

Prizes \$5.00 \$3.00 \$2.00 \$1.00 First, Second and Third Prizes of \$2.00, \$1.00 and \$.50 in each of the following classes:

Beets—table (5)

Beans—1 pint (dry shelled)

Beans-string (25 pods)

Cabbage—2

Carrots-5

Corn—Sweet (See corn class)

Cucumbers—3 Onions—5

Parsnips—3

Pumpkins—sugar (2)

Peppers-5

Squash—winter (2)

Squash—summer (2)

Tomatoes—ripe (5)

Turnips-5

Rutabagas—2

Potatoes-Plate of 7

Prizes in each of three classes \$3.00, \$2.00, \$1.00.

Green Mountain Type

Russet

Others

Corn—Sweet, for eating

Prizes in each class \$2.50, \$1.50,

\$.75.

Yellow—5 ears

White-5 ears

Corn-Flint-Best ten ears

Prizes \$3.00 \$2.00 \$1.00

Best single ear

Prizes \$2.00 \$1.00

POULTRY

Eggs—Best dozen in two classes

Prizes \$2.50 \$1.50 \$.75

Brown

White

CANNING

All canning must be by the one period cold pack method.

Best Collection of Different Varieties

of Canned Products

Prizes \$6.00 \$4.00 \$3.00

Best Collection of Different Varieties of Jelly

Prizes \$6.00 \$4.00 \$3.00 Best Collection of Five Jars (Club

requirement) (3 vegetables and 2 fruits)

Limited to Club Members

Prizes \$5.00 \$3.00 \$2.00

Best three uniform jars of Peas

Beans

String

Shell

Corn

Beets

Greens or Asparagus

Tomatoes cut

Blueberries

Raspberries or blackberries

Peaches

Pears

Plums

Chicken, Soup and Meat or equiv-

alent

Jelly

Jam

Prizes on each of the above:

\$1.50 \$1.00

BREAD

Yeast Breads

Best loaf of white bread
\$2.00 \$1.00 \$.50

Best loaf of any other kind of yeast
bread 1.50 1.00

Best pan of raised biscuits
1.50 1.00

Quick Breads

Best pan of baking powder
biscuits 1.00 .50

1.00

Best one-half dozen muffins

SEWING

Best two garments covered by the Home Economics Clubrules (Limted to Club members)

3.00 2.00 **1.00**

Best stocking darn (on a stocking) 1.00 .50

Best dress darn on garment 1.00 .50

Best hemmed patch on a small garment 1.00 .50

STATE CYAMPIONSHIPS FOR OUR YOUNG PEOPLE

Mildred Schwing of Franklin and Adrian Barnes of South Weymouth are the Leaders in Bread and Garden Club.

Two state championships have been won by Norfolk County Club members. Adrian Barnes of South Weymouth had the unbeaten garden record of the state for 1919 while Mildred Schwing of Franklin holds the lead in breadmaking. Both young people had plenty of competition from other counties, but Norfolk County

Club members know the state leaders made no mistakes in the awards.

The state championship usually carries with it a trip to Washington. This year the legislative appropriation was severely cut and the money is not as yet forthcoming. The trip, however, is scheduled for next Fall and will probably be carried out.

CLUB FIELD DAY AT WALPOLE AUGUST 13

Club Members From All Over County to Get Together at County Agricultural School for a Full Day of Club Work Enthusiasm

Club members from every town in Norfolk County are invited to attend the summer field day at the Norfolk County Agricultural School, Walpole, Friday, August 13. Demonstrations, demonstration contests, exhibits, inspection tours, games, and "eats" are scheduled to fill up the day from 10 to 4. There will be something for everyone every minute of the day and all will have a good time.

Grown ups are invited to be young for the day and attend, on the condition that every grown up bring one or more club members.

POULTRY NOTES

A coat of whitewash will add to the appearance and sanitation of the interior of the poultry house. A weatherproof whitewash for exterior surfaces can be made as follows:

- 1. Slake one bushel of quicklime in 12 gallons of hot water.
- 2. Dissolve 2 pounds of common salt and one pound of sulphate of zinc in two gallons of boiling water.
- 3. Pour (2) into (1), add 2 gallons of skim milk and mix thoroughly.

Spread the whitewash lightly over the surface with a broad brush.

Coming Events

POULTRY FIELD MEETINGS
Thursday, August 12th, 2 P. M. Farm of Z. A. Norris,
Dedham Avenue, Needham.
Friday, August 13th, 2 P. M. Farm of F. H. G. Morse,
Bay Street, Stoughton.

BOYS' AND GIRLS' CLUB FIELD DAY at Norfolk County Agricultural School, Friday, August 13th.

STATE GRANGE FIELD DAY at Norfolk County Agricultural School, Friday, August 20th.

COUNTY FAIR
at
Norfolk County Agricultural School,
Wednesday and Thursday,
September 15th and 16th.

上作为了

Agricultural

NORFOLK COUNTY AGRICULTURAL AND HOME MAKING BULLETIN

NORFOLK COUNTY FAIR

SEPT. 15 - 16, 1920 WALPOLE, MASS.

EXHIBITS

AND ENTERTAINMENT

FOR ALL

PUBLISHED BY

THE

NORFOLK COUNTY AGRICULTURAL SCHOOL
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VOL. III

SEPTEMBER, 1920

No. 33

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VOL. III

September, 1920

No. 33

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TIMELY TOPICS

School opens for the fall term on September 7th. In making up the schedule for the year we find that with the large number of freshmen it will be necessary to divide the class into two divisions.

Mr. James Salter, who was with us last year and resigned to take a position in North Attleboro, has been engaged as Horticultural Instructor and will return when school opens in September. Mr. Salter needs no introduction to the people of the County as his work here in the past speaks for itself.

Where is there a person at all interested in agriculture who is not interested in a good old fashioned plowing contest? Come to the Agricultural Fair with your team and enter with either a walking plow or a sulky and take home the price of several bags of grain.

There are three ways in which you can make our first County Agricultural Fair a success:—

- 1. Advertise.
- 2. Send exhibits.
- 3. Attend the Fair.

STATE GRANGE FIELD DAY

The State Grange Field Day held at the Agricultural School on Arugust 20th was well attended, visitors being present from all the surrounding towns and a large delegation of State Grange officers and Deputies from all parts of the state.

The morning was taken up with a ball game between the School and a team of Grangers, the School winning by a score of nineteen to six Dinner was served by caterer Holman of Norwood. Fully five hundred people were in attendance when the meeting was called to order at 2.15 P. M., Mr. M. A. Evans, Master of Norfolk Pomona, presiding.

Mr. E. H. Gilbert, Director of the School, welcomed the guests after which Leslie R. Smith, State Master, gave an interesting talk on grange work and explained the plans for the National Grange meeting which will be held at Boston in November. National Master Sherman J. Lowell of Fredonia, New York gave an address on Class Legislation. Fred D. Griggs, Secretary of the Middlesex County Farm Bureau, spoke on the National Farm Bureau Federation and the praiseworthy position Massachusetts was taking in organization. The Millis Orchestra furnished music and Past State Master Edward E. Chapman of Wilbraham led the singing.

Work is progressing rapidly on the addition to the boarding house and we expect everything will be in readiness when school opens. Every bed in the large dormitory has been engaged. We have accommodations for a few more in the small dormitory on the school grounds. If you know of any young man who is contemplating attending school here this fall and wishes accommodation ask him to send in his application at an early date.

POULTRY FIELD MEETINGS

The two Poultry Field Meetings held in Norfolk County August 12th and 13th were, to quote a number of the poultrymen, a grand success. Prof. Monahan upheld all that has been said about him as a disease specialist for his work was a revelation to those present. In spite of the poultry culling work carried on in past years a large number attended the demonstrations given by Mr. Argood. A feature of the two meetings was the talk given by Mr. Morse at Stoughton on economic management. Messrs. Norris and Morse are among our most progressive poultrymen and are always willing to share their successful methods with other poultrymen in the County.

RYE AND VETCH

With the ever increasing scarcity of stable manure the question of raising some crop to supply humus to the soil is an important one. As soon as corn, potatoes, etc. are harvested the land can be seeded down to rye. Rye is a non legume but supplies humus and when supplemented by commercial fertilizer a more satisfactory condition of soil is maintained than when fertilizer is used alone.

Rye and vetch can be sown if the crop preceding can be removed before the second week in September. About twenty pounds of vetch to one bushel of rye should be used. The vetch is a legume and if inoculated and the soil limed will supply nitrogen to the soil from the air as well as humus. If the crop is cut early it makes a fine green feed for early spring feeding. The County Agent is able to secure through the State Agricultural College bacteria for inoculation at a very low price. If you wish to secure bacteria for any legume notify him several weeks in advance.

AGRICULTURAL DEPARTMENT

NORFOLK COUNTY "COW CFNSUS"

Norfolk County has lost one quarter of its cows the past twenty-five years and is still losing them. This is no theory but the hard facts reported by the New England Milk Producers' Association as the result of the "cow census" which it has been taking, covering every town in Massachusetts for the past twenty-five years. The figures are the most accurate of any that have been collected on a year by year basis as they are taken direct from the returns of the assessors from each town.

In spite of the general lesses in Norfolk County there are a few towns that show a gain. Avon leads with a gain of twenty-eight percent and Randolph is a close second with a gain of twenty-seven percent. Cohasset gained eight percent and Holbrook six percent. All other places lost but Quincy which was practically stationary.

Canton, Millis, Sharon, Stoughton, Weymouth and Wrentham lost less than ten percent. Places losing between ten and twenty percent were Bellingham, Braintree, Dedham, Franklin, Medway, Norwood and Walpole. Those between twenty and thirty percent were Foxboro and Milton. Higher percentages of loss were reported from Brookline sixty four, Dover fifty, Medfield fifty eight, Needham thirty five, Norfolk fifty two and Wellesley forty one.

The tractor demonstrations which will be held both days of the Agricultural Fair will give the farmers of Norfolk County a chance to see both the field and garden tractors in operation. If you are interested in any one of the different styles of tractors and motor cultivators you cannot afford to miss these demonstrations.

CELERY INSPECTION

For the information of the market gardeners within the area quarantined on account of the European Corn Borer, certification and inspection of celery, for the present, will be made in the washroom. Growers will be furnished with certificates by Inspectors for such boxes as may prove to be free from the corn borer.

All requests for inspection of celery must be made at least one day in advance of shipment, otherwise shipments are liable not to receive attention. More than one day will aid the work. Celery must not be bunched before inspected. No celery leaves or green refuse will be allowed in certified packages.

Applications for inspection should be addressed to: United States Department of Agriculture, 43 Tremont Street, Boston, Mass. Telephone, Haymarket 188.

The Department of Horticultural Manufactures of the Massachusetts Agricultural College will have a demonstration home storage room for fruits and vegetables at the Agricultural Fair. Prof. William R. Cole of the Department will give a talk on storage and will answer questions.

Thursday, September 16th, of the Agricultural Fair will be given over to meetings of market gardeners, fruit men and dairy men with lectures at different times on subjects of vital interest to those engaged in such types of farming.

The Agricultural Fair program for Wednesday, September 15th, will include demonstrations of poultry killing and poultry disease control. All those who did not have an opportunity to hear Prof. Monahan at the Poultry Field Meetings should avail themselves of the opportunity.

MARKET GARDEN FIELD MEETING

It seemed as if every market gardener in the state was in attendance at the annual field meeting held at the Market Garden Field Station in Lexington on August 4th.

The garden tractor demonstration attracted a large number and all agreed that there is still a chance for improvement in all of the makes shown. The small, one wheeled cultivator seemed to impress quite a number but there again all agreed that the chance for improvement was great. It might be well to take this space to say that almost all the common types of tractors will give demonstrations at the Norfolk County September 15th Agricultural Fair. and 16th, giving all those who were not able to visit the Field Station a chance to see the tractors in operation.

Prof. Tompson, in charge of the Station, is to be congratulated upon the different demonstrations being conducted. Among the many things that impressed the delegation from Norfolk County was the chance for the home growing of seeds. Seed of

all of the root crops can be easily grown from stock selected on the farm as well as many of the other common vegetables.

With the growing shortage of stable manure the subject of green manures is one that seems to interest all of the commercial vegetable growers. The display of the various kinds of green manures and cover crops growing side by side was worth the trip.

At the meeting of the State Vegetable Growers' Association held under the oaks the subject of the standard bushel box was discussed by various growers present and all agreed that it is time to stop the use of a package in the markets sold as a bushel but containing about one and one-fifth bushel by cubical measure.

Short addresses were given by President K. L. Butterfield of the Massachusetts Agricultural College; Sidney Haskell, Director of the Massachusetts Agricultural Experiment Station; and John D. Willard, Director of the Extension Service of the Massachusetts Agricultural College.

ERADICATION OF WITCH GRASS

Witch grass, known in parts of the state by other names, as quack grass, dog grass, etc. is the weed that does the most damage in Massachusetts. many farmers say the control of witch grass is their most serious problem.

The damages of this weed to the agriculture of the state may be briefly summed up as follows:—

1. Increases labor cost of crop production-

Extra labor is required to control this weed in cultivated crops and much of this is expensive hand labor.

2. Reduces yields-

Yields are reduced when the witch grass gets ahead of the crop.

3. Land is cropped a long time-

Fields which have been cleared of this weed are kept in cultivated crops while other fields which need taking up are left to grow more unproductive.

Methods of Control

There are methods of eradication which are fairly successful. These are more successful in dry weather than in wet seasons. Perseverance is as important as the method and half-hearted attempts to eradicate this weed will be a failure.

1. Summer Fallowing. This is an expensive method, which is recommended as being very satisfactory, where carefully followed.

Sod land is plowed shallow in mid-summer after the hay has been

harvested or after close pasturing. The field is cultivated with a disk or spring-tooth harrow after plowing and then every ten days or two weeks until winter. In wet seasons more frequent disking is necessary, going over the land as soon as the green sprouts show. This land is plowed deep in the spring and a cultivated crop grown. Keeping this clean gives the weed a final knockout blow.

If disking does no get ahead of the witch grass a second plowing 5 to 6 inches deep in late summer or early fall will help.

2. Sowing buckwheat or millet after harvesting hay

The field may be plowed after removing a hay crop as suggested above and then sown thickly to buckwheat or millet. These crops are rank and quick-growing and to some extent get ahead of the witch grass and choke it out. Many farmers have satisfactorily grown buckwheat for this purpose. While it may not entirely kill out the witch grass, it will weaken the stand. These crops may be harvested or plowed under.

3. Fall Plowing and Disking

Plowing in late summer or early fall and disking once or twice to drag as many root-stalks to the surface as possible, will help weaken the stand of witch grass. This method is not as effective as harrowing and disking during the summer but it is well worth while because it will weaken the stand.

4. Ridging potato land-

Some farmers have gotten rid of witch grass in potato fields by ridging the potatoes two or three times per season. Digging the crop will help get rid of the plants left in the row. On land that dries out during the summer too much ridging is not advised because the yield of potatoes may be reduced during periods of drouth.

5. Disking Field in Spring-

Disking or harrowing land in the spring as much as possible before

get rid of the witch grass. Many farmers have, in this way, eradicated it from land which was not planted to a crop until mid-summer.

6. Cultivation with horses cheaper than hand labor.

Planting corn in rows so that it can be cultivated both ways will save a lot of expensive hand labor in combatting the weed.

PROF. EARLE JONES

POULTRY NOTES

The following treatment for intestinal worms was recommended by Prof. Monahan, Poultry Specialist of the Massachusetts Agricultural lege. For one hundred birds take one pound of finely chopped tobacco stems, steep these for two hours in enough water to keep them covered. This liquid, including the with ground feed enough for onehalf of the usual feeding is a highly recommended preparation. On the day of treatment do not feed until two o'clock in the afernoon when the medicated mash is fed moistened. About two hours afterwards, or four o'clock, give about one fourth of the usual ration of ground feed mash made with water in which one pound of Epsom salts to one hundred birds has been dissolved. Early the next morning the droppings ought to be removed to prevent the birds from getting any of the worms. Another treatment repeated in seven days is sometimes advisable.

The pullets ought to be coming along in good shape at this time. are a little under sized they would pay to increase the proporiton of beef scrap in the mash ration. Are the winter quarters ready to receive the pullets? Also,-are you planning to light up the laying houses this winter? It seems that most of the larger producers of poultry products in the County are using either artificial illumination or contemplate putting in the "lights".

HOME MAKING DEPARTMENT

ONE HUNDRED AND SIXTY-FOUR DOLLARS OFFERED TO NOR-FOLK COUNTY WOMEN

Generous Prizes in Food, Clothing, and Handicraft Offered For Exhibits in the Home Making Department at the County Fair

Enthusiasm for the County Fair is being shown by town groups and individual women throughout the county. Premium lists and entry blanks have been placed in the hands of the town committee and all entries of exhibits must be in by Sept. 10.

All contestants in the Home Making Department are asked to conform to the following rules:—

- 1. All entries must be made on entry forms furnished by the fair committee.
- 2. All entries must be addressed to Norfolk County Agricultural School, Walpole, Mass. and received by Sept. 10th.
- 3. Exhibits in all classes must have been completed during the current year.
- 4. Exhibits will not be set up unless plainly marked with the name and address of the exhibitor.
- 5. All exhibits must be produced by the exhibitor.

- 6. The award of first prize, will not be made on any article unless the quality of the product merits the award.
- 7. When but one entry is made in a lot the judge shall determine whether or not it is worthy of a prize.
- 8. Exhibits will be returned to sender in the same manner in which they were shipped-at exhibitor's expense.
- 9. No exhibit can be removed until 5.00 P. M., Sept. 16th.

An interesting program of lectures and demonstrations has been arranged for the two days including a demonstration in jelly making, electrical household devices, a talk on tinting and dyeing of dress materials, and lantern slide lectures. This is a fine opportunity to see many high grade exhibits, hear an interesting program, meet your county neighbors, and help your county fair to be a success.

MAKE JELLY WITH LESS SUGAR

Old Formula Recommending Equal Parts of Fruit Juice And Sugar Is Tabooed

It has been said that there will be very little preservation in this secton this year because of the high price of sugar. This is a wrong viewpoint for fruit may be canned or made into jelly with much less sugar than is ordinarily thought necessary. Formerly the standard has been the number of jars of jelly produced from a given amount of

fruit—now the standard should be the number of jars of jelly produced from a pound of sugar. The thrifty housewife will secure as much sugar as she can and make it go as far as possible, but under no conditions should she sacrifice fruit because sugar is not available for preservation.

In jelly making sugar may be used

in any proportion to fruit juice from a little or none up to equal amounts or more. When used in excess the natural flavor of the fruit is obscured. Sub-acid fruits such as apples, quince, grapes, blueberries, etc. give the best jellies when the proportion of sugar is from ½ to½ the amount of juice. Acid fruits require more to make them palatable.

Always make two extractions of juice. With hard fruits use equal weights of water and fruit for both extractions. With soft fruits, use ½ to ½ as much water as fruit for the first extraction and double that amount for the second.

Place the fruit and water in a covered kettle, place over a quick fire and bring to the boiling point. Continue to cook, stirring only to prevent scorching until the fruit tender. Remove from the fire and let stand from ten to fifteen minutes. Strain through a square of best grade cheesecloth. Return pulp to the kettle, add the proper amount of cold water, boil from 3 to 5 minutes and allow to stand for 15 minutes to obtain the second extraction. Drain as directed above. Mix the two extractions of juice, measure, and concentrate the juice about 1/2 for hard fruit and 1/3 for soft fruit, before adding the sugar. Do not use more than ½ as much sugar as fruit juice. In this proportion one is allowed to enjoy the real flavor of the fruit and a jelly of high quality may be secured.

FRENCH LIKE OUR CANNING METHODS

Last year France borrowed three canning specialists from the United States Department of Agriculture. This unit taught a large number of agricultural directors and professors, assembled for the purpose at the principal French agricultural college, the American methods of canning and drying. This year the

Americans have been asked to continue the demonstrations and lectures.

Instead of giving the instruction at one place in France this summer, short courses will be conducted in different parts of the country at the schools where those who attended the course last year have been teaching American canning methods. To facilitate the work the French Government recently issued a bulletin which gives complete directions for canning by the American method.

The American method of canning, that is, cooking fruit and vegetables in the jar, is spreading fast through all known civilized countries. The school held in France last year was attended by Algerians, Syrians, Armenians, and Egyptians who since nave been teaching the people in their respective countries to can a la American.

This year other countries besides France are requesting lectures and demonstrations on this work. Holland's Health and Nutrition Department, recognizing the value of plenty of fruits and vegetables in the diet of a people all the year around, has asked for 10-day lectures demonstrations by the Americans. Denmark will call home her agricultural consuls this summer from all parts of the world for two weeks' instruction in food conservation to be given by Mr. Lund. Belgium and England also have requested the loan of the canning specialists.

The fact that in 1918, at a time when it was so necessary that nothing be wasted, the housewives and elub girls in America were able to conserve nearly a billion jars of food has made a deep impression on people in other lands, who now are anxious to learn how it was done.

Entry blanks for your exhibit at the County Fair must be in this office by September 10th.

DO YOU KNOW HOW MUCH TO CAN?

One Weman Has Answered This Question By Keeping Records

No two families use the same amount of canned products during the year so it is quite impossible to estimate the amounts of the different fruits and vegetables which an individual family will require. Mrs. E. D. Waid of Walpole has found her canning budget very helpful to her in carrying on the business of her household and that it takes very little of her time to make it out. The Home Demonstration Agent asked for the privilege of printing her canning budget in the Farm Bureau Bulletin so that other county women may see a simple method of keeping these records. Following Mrs. Waid's 1919 Canning Budget:

CANNED PRODUCTS-1919-INVOICE TAKEN JUNE 30, 1920.

DED A TATA CHO	OT L DES	D. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7.	HALF	OT LOOT	AM'T	AM'T	ESTIMATE
PRODUCTS	QUARTS	PINTS	PINTS	GLASSE	SUSED	LEFT	FOR 1920
FRUIT							
Blueberries		18			7 pts	11 pts	12 pts
Cherries		14	1		9 pts	5 qts	10 pts
Peaches	15	15			2 q13 p	. 13 q2 p	o. 10 qts
Pears		20			17 pts	3 pts	$15 \mathrm{~pts}$
Plums		13			11 pts	$2 ext{ pts}$	$12 \mathrm{~pts}$
VEGETABLES	;						
Asparagus	4	7			4 q7 p.	0	15 pts .
Beans	16				12 qts	$4 ext{ qts}$	12 qts
Beets	1 2				12 qts	4 qts	$12 \mathrm{~qts}$
Corn	20				11 qts	$9 ext{ qts}$	$12 \mathrm{~qts}$
Mushroom		2	1		1 1-2 pts	1 pt	0
Peas		3			$3 ext{ qts}$	0	$10 ext{ pts}$
${f Tomatoes}$	38				26 qts	12 qts	30 qts
PICKLES							
Beets	16				2 qts	14 qts	0
Chili Sauce	3	10			2 q8 p.	1 q2 p	. 10 qts
Green Tomat	0 6				3 qts	$3~\mathrm{qts}$	4 qts
Mustard	12				$5~\mathrm{qts}$	$7 ext{ qts}$	$16 ext{ qts}$
Peaches	13				7 qts	$6~\mathrm{qts}$	10 qts
Pears	8				3 qts	$3 ext{ qts}$	10 qts
Plums			2		0	$2 ext{ pts}$	$10 ext{ pts}$
JELLIES							
Blueberry				3	1 glass	2 glasses?	10 glasses
Crabapple			,	26	14 glasses	12 "	12 ''
Currant				26	17 ''	9 ''	12 · ''
\mathbf{Grape}				24	12 ''	12 "	12 "
Peach			13		6 "	7 "	10 "
Pears			9		8 "	1 ''	12 "
Plum				21	13 ''	8 ''	12 "

GARDEN SEEDS REQUIRED FOR FAMILY OF ELEVEN

Providing for Fresh Vegetables in the Summer and 600 Quarts of Canned Vegetables

Very few families have definite records of the amount of vegetables which they need to produce to supply their family in the summer with the fresh product and for canning a supply for winter use. Mrs. J. C. Hopkins of Dover has contributed the following information which she has worked out for her family of eleven. It is interesting to note that two quarts of canned vegetables are provided for each day. Such a proportion of vegetables in the diet means greater health for the family. Beans—

3 lbs. stringless, 1 lb. lima Beets—

1/4 pound Black Red Ball

1/4 pound Detroit

1/4 pound Dark Stimson

Cabbage—

2 oz.

Carrots-

1/4 pound

Cauliflower—
4 pkgs. early and late

Celery-

1/2 oz. early, 1/2 oz. late

Corn---

5 lbs. Golden bantam, 1 lb. Howling Mob, 1 lb. White Evergreen

Egg Plant-

1 pkg.

Lettuce-

1 oz .- continuous sowing

Melons-

2oz.

Onions-

3 oz.

Parsnip-

1 pkg.

Peas-7 varieties

14 lbs.

Peppers-

2 pkgs.

Potatoes-

1 bu. early Rose, 12 bu. Green Mountains. (This supplies another family also) Spinach-

1/4 pound Long Season

1 pkg. early White Bush

1 oz. Golden Crookneck

Tomatoes-

3 pkgs.

Turnip—

1 oz.

Experiments this Year

Early Watermelon

1 pkg.

India Gherkin

1 pkg.

for pickles

Extra early White spine

1 pkg.

Davis

1 pkg.

Don't forget that fruit juices may be extracted, strained, bottled, and sterilized during their season and kept until later in the year when they may be made into jelly. This relieves the strain on the sugar supply during the preservation season and enables one to have fresh jelly any season of the year.

Is your exhibit of eggs or dressed poultry nearly ready to enter at the Norfolk County Fair? Someone will get the prizes—why not you? Entry blanks can be secured by addressing the Norfolk County Agricultural School Walpole. All entries must be made before September 10th.

Thrift Suggestions

- 1. Plan well.
- 2. Choose well.
- 3. Use well.
- 4. Waste nothing.

5. Save something.

JUNIOR EXTENSION DEPARTMENT

FIELD DAY A BIG SUCCESS

The few adults who attended the annual summer Field Day of the Norfolk County club members held at the Agricultural School at Walpole, August 13th seemed to enjoy the events of the day as much as did the 220 young people who gathered there. In spite of the threatening weather the attendence among the children was better than on previous years and the program was uninterrupted.

Games, contests, songs, cheers. canning demonstrations and judging contests, a vegetable judging contest and a breadmaking demonstration made up the general program. After the sun finally decided to come out and stay out the scheduled trips about the school farm, inspection and explanation of crops and buildings were conducted by students of the school. A short address of welcome was given by Director Ernest H. Gilbert, introduced by the county Success Club President, Helen Findlen.

In the competition among canning demonstration teams for the county championship, Dedham again scored first as last year. The team was trained by Helen Findlen, junior leader for Dedham. The canning judging team trained by the same leader won first in that contest. Medfield came a close second in the judging. Weymouth scored second and Franklin third in the canning demonstrations. Other teams were present from Westwood and Holbrook.

Ebba Eckberg, a Dedham girl gardener, placed first in the vegetable judging contest with Weymouth, Foxboro, and Walpole club members next in line.

The day closed at 4.15 with songs and cheers.

Since a general invitation is always extended to the older people throughout the county to attend these meetings of the juniors, it seems a pity that so few take advantage of it. Occurring only twice a year, it is an unusual opportunity to see what is being done by these boys and girls in their various club projects. Cooperation and interest from the older people would do a great deal to stimulate the work among the children.

FALL EXHIBITS

The fall exhibit season is approaching rapidly and plans are well under way in most Norfolk County towns for Grange or harvest fairs. With the addition of the big county fair, many attractive premiums are being offered for canned goods for old and young.

In thirteen towns the canning club members are preparing their jars for the final exhibit. Several granges are planning to offer prizes at their fairs to interest the boys and girls. It is hoped that many townspeople will attend the exhibits wherever they may be held. Information may be obtained from the local leader whose name is listed below if the exhibit is not already scheduled:

Braintree-Miss Ruth Bennet.

Canton-Miss Elsie Owen.

Cohasset—Annual fall exhibit for gardening and canning.

Dedham—Fall exhibit Sept. 23rd and 24th.

Foxboro-Grange fair.

Franklin-Mrs. Alden Mann.

Holbrook—Miss Dorothy Boardman, Medfield—Miss Blanche Marcion-

Medway--Mrs. J. G. Anderson.

Needham—Grange Fair—Sept. 24th and 25th.

Plainville—Grange Fair probably early in Oct.

Westwood-Grange Fair-Sept. 23.

Weymouth—Weymouth Fair, Sept. 3rd, 4th, and 6th.

Wrentham-Mrs. Ernest Mayshaw.

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OCT 1 5 1920

NORFOLK COUNTY AGRICULTURAL AND HOME MAKING

BULLETIN



FIRST PRIZE WINNER IN SCHOOL GARDEN WORK
IN FRANKLIN AND HIS GARDEN

PUBLISHED BY

THE

NORFOLK COUNTY AGRICULTURAL SCHOOL WALPOLE, MASSACHUSETTS.

VOL. III

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No. 34



NORFOLK COUNTY AGRICULTURAL AND HOME MAKING BULLETIN

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VOL. III

OCTOBER, 1920

No. 34

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TIMELY TOPICS

There is at present a total enrollment of sixty-five pupils in the school and the following towns in Norfolk County are represented in the student body, Braintree, Bellingham, Brookline, Canton, Dedham, Franklin, Foxboro, Medfield, Medway, Millis, Milton, Needham, Norfolk, Norwood, Randolph, Sharon, Stoughton, Walpole, Wellesley and Wrentham. From Middlesex County we have students from Cambridge, Hopkinton, Newton, and Sherborn. From Suffolk County, West Roxbury and Hyde Park are represented. From Bristol County, North Attleboro is the home

of three of our boys. One student who has had two years of Agricultural training in the Newton Vocational School, is here for his final two years course.

The Weymouth Branch has an enrollment of twenty-one boys. Weymouth has sent us a student for his advanced courses, he having been enrolled for the past two years in the Agricultural Department at the High School.

Is your boy interested in an agricultural education?

SCHOOL GARDEN WORK IN FRANKLIN

Henry Egner, a graduate of the Norfolk County Agricultural School was employed as Garden Supervisor by the School Department of Franklin during the summer and over 200 children who had gardens came under his supervision. These gardens ranged in size from the small flower garden of 10-12 feet to gardens of one quarter acre or over. Many of these gardens have supplied the summer vegetables for large families and some of the boys have sold produce enough in addition to pay all expenses of ploughing, fertilizer, etc. and have a tidy balance for pocket money.

Our frontispiece shows Master Albert Vena in his garden. He won the first prize, having the best school garden in Franklin.

BOARD OF TRADE MEETING

The Associated Boards of Trade of Norfolk County will hold their next meeting at the Norfolk County Agricultural School, Tuesday evening, October 26th.

COUNTY FAIR NOTES

The fact that it is possible to conduct a fair without the objectionable midway found at most of our fairs was proven to the satisfaction of all present.

A public meeting will be held at the Norfolk County Agricultural School on Thursday, November 4th, at 7.30 P. M. to consider plans for holding a Fair in 1921. It is hoped that all persons interested in the Fair will be present. Representatives of various civic organizations, Granges, etc., throughout the County will be invited to participate.

AGRICULTURAL DEPARTMENT

HOME STORAGE OF FRUITS AND VEGETABLES

By W. R. Cole

The family having a cool room in the cellar of its house or a place that can be utilized as a cool room is in a position to enjoy fresh vegetables of many varieties through the winter months. If these products are grown on a vacant lot or other garden site they will be produced at small cost and help very greatly in keeping down the food budget.

Those having a cold room, however, or having a place in the cellar that might be used for one, need not hesitate to make use of it, even if they are obliged to buy their vegetables, since the time of year when these supplies should be put in is also the time of greatest supply and lowest price.

This applies to most all the root crops as well as to potatoes and apples. For the purpose of illustration let us consider the potato which is recognized as a staple by a majority of our population.

During the harvest months, September and October, in the years 1915-1918 inclusive, potatoes sold, on an average at wholesale, at prices per bag that amounted to 1.07 per bushel, or for purposes of comparison .27 cents per peck.

During the consuming period, November 1st to June 1st, 1916-1919 inclusive, which corresponds to the first mentioned harvest period, the average retail price per peck was: .47 cents.

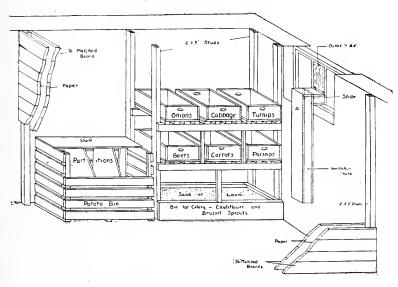
An average family of five, two adults and three children, will consume about 20 bushels of potatoes in this period. These would have cost, at the average price quoted, if bought at wholesale at harvest time \$21.40, while if bought by the peck as consumed through the consuming

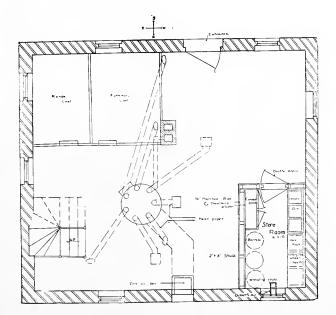
period they would have cost \$37.60.

This shows a possible saving of \$16.20 on this one item alone. If the cost of construction of the cool room was \$50 the saving on potatoes alone

in the one season would be a very good return on the investment. When other roots and apples are included the proposition is even more attractive.

THE PLAN OF A ROOM





The home storage cool room should be located in the cellar and as far as possible from the heater. It should be so placed that a cellar window opens into it. For an average family a room 6 ft. by 10 ft. will be ample.

The walls can be of the simplest construction and the following directions are offered. Studs may be of 2 in, x 3 in, stock and should be covered on both sides with building paper and this in turn with matched boards. This will give an effective air space as protection against heat and cold.

Double doors are an advantage but a good, tight fitting single door will answer.

One pane of glass in the window should be removed and a cold air flue of a cross-section size equal to the pane area built in carried down to within six inches of the floor. This flue should have a tight fitting shutter on the outside and a damper

just inside the window opening. This shutter and damper will provide the air space necessary to protect from cold entering from outside. A second pane of glass should be removed and a shutter fitted in its place. This is to provide a warm air outlet and thus complete the ventilation circuit.

If the cellar has a concrete floor it will probably be necessary to put in a pail or pan of water, or to occasionally sprinkle the floor in order to provide sufficient moisture.

The equipment of the room is a problem for the individual householder. It is a good idea to build in a set of shelves for canned products, and either a curtain or doors should be provided to keep the shelves dark. Racks for boxes of vegetables and bins for potatoes are a convenience. Assistance can be obtained from the County Agent or by writing the Extension Service, M. A. C., Amherst, Mass.

NORFOLK COUNTY FAIR

The County Agricultural Agent wishes to take this space to thank all who cooperated with him to make the Agricultural Department of the first Norfolk County Fair a success. In spite of the disagreeable weather been estimated that average attendance each day was over two thousand people. Horticultural exhibit was one of the big features of the fair and showed to all interested just what the vegetable and fruit growers of the county can do when they get started. The following is a list of those winning premiums in the Agricultural Department:

Fruit

Apples

Best collection of five or more plates—standard varieties.
1st—A. R. Jenks, West Acton.
2nd—Avalon Farm, Millis.
3rd—Samuel Hogarth, West Wrentham.

Baldwin

1st—F. S. Almy, West Wrentham. 2nd—Samuel Hogarth, West Wrentham,

3rd—A. R. Jenks, West Acton. McIntosh

1st-Avalon Farm, Millis.

2nd—A. N. Simmons, North Stoughton.

3rd—A. R. Jenks, West Acton. Gravenstein

1st—A. R. Jenks, West Acton. 2nd—Robert Kimball, East. Walpole.

3rd—E. F. Richardson, Millis. Wealthy

1st—A. R. Jenks, West Acton. 2nd—A. N. Simmons, North Stoughton.

3rd—Charles Wilson, West Med-way.

Rhode Island Greening

1st—F. S. Almy, West Wrentham. 2nd—A. N. Simmons, North Stoughton. 3rd—Samuel Hogarth, West Wrentham.

Delicious

1st—Samuel Hogarth, West Wrentham.

2nd-F. D. Woods, Wellesley.

Crab

1st—W. D. Rowell, Millis. 2nd→William E. Ingram, Walpole.

Pears

Best Collection of five or more plates—standard varieties.

1st—Mr. Spear, South Weymouth. 2nd—J. C. F. Slayton, Millis.

Bartlett

1st—B. F. White, Jr., Westwood. 2nd—G. M. Joy, Norwood.

3rd—Robert Kimball, East Walpole.

Bosc

1st-W. Larson, East Walpole.

2nd-G. M. Joy, Norwood.

3rd—B. F. White, Jr., Westwood. Clapps Favorite

1st—North Walpole Greenhouses. Seckel

1st—Gilman F. Allen, Walpole.

2nd-A. Holton, Norwood.

3rd-A. R. Jenks, West Acton.

Plums

1st—F. S. Almy, West Wrentham. 2nd—B. F. White, Jr., Westwood.

Granes

Best Collection of five or more plates—standard varieties.

1st—William T. Mingels, Walpole. Plate

1st—William T. Mingels, Walpole. 2nd—William T. Mingels, Walpole.

Vegetables

Farm Display

1st—E. H. Child, Westwood. 2nd—F. B. Smith, Canton.

3rd—Norfolk County Hospital, South Braintree.

Grange Display

1st—Westwood Grange. 2nd—Norwood Grange.

Beans

Dwarf Wax

1st—F. D. Woods, Wellesley. 2nd—Adrian Barnes, South Weymouth. Dwarf Green Pod

1st—F. A. Hayden, South Brain-ree.

2nd—J. Edward Plimpton, Walpole.

Dwarf Shell

1st—F. A. Hayden, South Braintree.

2nd—A. R. Jenks, West Acton. Honorable Mention, F. A. Hayden South Braintree.

Kentucky Wonder

1st-F. D. Woods, Wellesley.

Pole Shell Beans

Honorable Mention—Gilman F. Allen, Walpole.

Beets

Crosby's Egyptian

1st—F. A. Hayden, South Braintree.

2nd—I. Kovolesky, Stoughton. Honorable Mention, A. K. Rogers, Milton.

Edmunds

1st—F. D. Woods, Wellesley.

Cabbage

Early Round Headed Type 1st—Lewis Farm Company, Wal-

2nd—P. Gill, Dover.

Late Round Headed Type.

1st—Lewis Farm Company, Walpole.

2nd-E. H. Belden, Sharon.

Carrots

Early Varieties

1st—Winfield Price, South Wey-mouth.

2nd—A. P. Benson, Dedham.

Danvers Half Long

1st—James G. Anderson, Wes Medway.

2nd—Adrian Barnes, South Weymouth.

Other Varieties

1st—Thomas M. Proctor, Wrentham.

2nd-G. M. Joy, Norwood.

Cauliflower

1st—Lewis Farm Company, Walpole.

Corn

Sweet—Yellow.

1st-A. Holton, Norwood.

2nd—F. A. Hayden, South Braintree.

Sweet-White

1st--Charles King, Walpole.

2nd—Lewis Farm Company, Walpole.

Cucumbers

1st—A. R. Jenks, West Acton. 2nd—A. K. Rogers, Jr., Milton. Honorable Mention—E. C. Britton, Canton.

Muskmelon

1st—F. D. Woods, Wellesley. 2nd—E. A. Britton, Canton.

Onions

1st—A. K. Rogers, Jr., Milton. 2nd—E. H. Belden, Sharon.

Parsnips

1st—F. D. Woods, Wellesley. 2nd—F. A. Hayden, South Braintree.

Peppers

1st—Gilman F. Allen, Walpole. 2nd—F. D. Woods, Wellesley.

Pumpkins-Sugar

1st-Joseph Roche, Jr., Norfolk. Squash

Summer Crookneck.

1st—J. C. F. Slayton, Millis. 2nd—Joseph Roche, Jr., Norfolk. Golden Hubbard

1st—D. W. Thomas, Walpole. Green Hubbard

Honorable Mention—E. C. Britton, Canton.

Tomatoes

Early Varieties-Soft.

1st—Fred A. Hayden, South Braintree.

2nd—T. M. Proctor, Wrentham. Honorable Mention—William Law, Foxboro.

Honorable Mention—A. H. Parker, Charles River.

Late Stone Type.

1st—F. A. Hayden, South Braintree.

2nd—A. P. Benson, Dedham. Honorable Mention—Gilman F. Allen, Walpole.

Turnips

2nd—W. Larson, East Walpole. 2nd—Joseph Roche, Jr., Norfolk. Potatoes

Cobbler

1st—D. W. Thomas, Walpole. 2nd—A. N. Simmons, North Stoughton. 3rd—Joseph Roche, Jr., Norfolk. Dibbles Russett

1st—Wampatuck Farm, Canton. 2nd—Ralph W. Hunter, West Medway.

3rd-Erastus Smith, Stoughton.

Spaulding Rose

1st-E. A. Glass, Norfolk.

2nd—Leon Thomas, South Wey-mouth.

3rd—A. N. Simmons, North Stoughton.

Green Mountain

1st—J. E. Plimpton, Walpole. 2nd—James G. Anderson, West Medway.

3rd—E. B. Parmenter, Franklin. Gold Coin

1st—T. M. Proctor, Wrentham. 2nd—Fred C. Fisher, Walpole.

Norcross 1st—E. H. Belden, Sharon.

Early Rose

2nd-P. Gill, Dover.

Seed Corn

Traces of twenty five ears. 1st—D. W. Thomas, Walpole. 2nd—Mrs. F. B. Mundy, Millis.

Poultry Products

Brown Eggs

1st—E. B. Parmenter, Franklin. 2nd—E. H. Belden, Sharon. 3rd—Mrs. E. H. Gilbert, Stoughton.

Dressed Poultry.

1st—E. B. Parmenter, Franklin. 2nd—Leon Regan, Walpole.

Floral Exhibit

Cut Flowers

1st—Miss Mary B. Hill, Walpole. 2nd—D. W. Thomas, Walpole. 3rd—G. W. Perkins, Westwood.

Masturtiums

1st—Mrs. E. T. Mingels, Walpole. 2nd—Mrs. E. E. Copeland, South Bellingham.

Asters

1st—North Walpole Greenhouses. 2nd—Mrs. Gilman F. Allen, Walpole.

3rd-D. W. Thomas, Walpole.

Dahlias

1st—William Mulkern, Dedham. 2nd—Mrs. A. C. Scott, East Weymouth. 3rd—Mrs. Gilman F. Allen, Walpole.

Gladioli

1st—T. M. Proetor, Wrentham. 2nd—George H. Walker, Charles River.

3rd—North Walpole Greenhouses. Honorable Mention—Mr. Lewis, North Easton.

Wild Flowers

1st-Henry Heyl, Walpole.

Potted Plants

1st—North Walpole Greenhouses 2nd—G. W. Perkins, Westwood. 3rd—Mrs. Gilman F. Allen, Wal-Walpole.

Honorable Mention

Cosmos—Mrs. George Fisher, Walpole.

waipole.

Cosmos—Mrs. Gilman F. Allen, Walpole.

Begonia—Mrs. M. H. Howard, Norwood.

Petunia (Double White)—Mrs. Gilman F. Allen, Walpole.

Zinnia—D. W. Thomas, Walpole.

Plowing Contest

1st—Lewis Farm Company, Walpole.

2nd—Lewis Farm Company, Walpole.

You will notice on the list of awards the name of Mr. F. H. Almy of West Wrentham. He is to be congratulated on the quality of exhibits shown.

Does your soil need lime? Your County Agent will be glad to test your soil and if it is found to be acid you will have ample time to order lime for application next spring.

Does liming pay?

The following results were obtained from the demonstration conducted on the farm of Charles Adams, Medway.

No. Lime 2.62 tons Ground Limestone 5.25 tons Hydrated Lime 5.62 tons

While the Hydrated Lime gave slightly better results the plot treated with ground limestone showed the best stand of clover. Mr. Adams will be glad to give further information upon request.

MARKET GARDEN NOTES

H. F. Thompson

Market gardeners will soon be having visits from seedsmen, booking business for 1921. It will be well to have pretty definitely in mind the quality of crop produced during the last year. We have in mind in particular Copenhagen Market cabbage which was observed, in Massachusetts, last spring, nine fields out of ten showed poor seed quality. There were several types of cabbage in the field, some early and some late, some good and some not good. It was possible to see at the Market Garden Field Station, a great variation in the quality of Copenhagen Market cabbage in the limited variety test. Within a very few days the attention of the writer was called to some home garden tomatoes which showed very exceptional quality, and seemed to be absolutely perfect, while a good many others have been observed which were far from right. In harvesting some carrots, at the Field Station, to be recorded in a variety test, it was found that some varieties ran fairly true to type, while others showed roots short and long, light colored and dark colored, smooth and rough. The crop was grown on uniform land, only two rows of a kind, not far from the Service Building, and yet the variation between lots was very great. The seed was the controlling factor. Think things over and be prepared to order seed where you can get the best, and be willing to pay well, for high quality seed.

Green Manure Crops

Inquiries are being received at the present time as to what can best be sown for a green manure crop to plow under early in the spring. There are three or four available, and very much worth while. As yet we

have to guess at their comparative value rather than have any definite record. Winter rye will make the most growth above ground, prevent washing of the soil, and take up much plant food which might otherwise be washed out of loose garden soil from now until spring. In fact, this last named function is one of the most important for the green manures. It is a good deal like saving the change from the dollar bills. The more soluble plant food there is, the faster the rye will grow, the more it will save, and the more humus it will furnish. The more open the soil, the greater the possibilities of loss with the green manure crop.

Barley is in some ways an extremely valuable crop, if sown immediately. It will make considerable growth between now and the time it is killed by winter, and be less troublesome in the spring when the ground is to be used for the first early crops. A combination of winter rye and winter vetch with the vetch seed inoculated ,gives promise for soil improvement. There are some difficulties in the way of handling. Vetch will not make much growth this fall, but will grow very rapidly in the spring. If the land is to be plowed the first half of April the spring growth will not amount to much. If left until the middle of May there will be a big growth, and considerable nitrogen gathered from the air. However, there is some difficulty in plowing this crop under because it makes such a tangle. This is one of the worst features of this combination.

It is to be hoped that we will soon have more accurate knowledge about the growth, bulk of top and root produced, and general value of green manure crops, for different seasons of the year. Men should come to a point where they will keep their ground growing green manures between crops. If there happens to be four or five weeks between principal crops, and some quick growing green manure can be put in, it is important to do this. Buckwheat has shown a

growth of thirty inches in four weeks, during the summer season.

CORRESPONDENCE COURSES

At the Massachusetts Agricultural College

The Massachusetts Agricultural College correspondence course term begins October 1st, after which courses in agriculture may be started at any time until May 1st, 1921, and may be continued through the month of June. Your County Agent will make personal visits to and assist in any way possible those who decide to take the course. Catalogues describing the correspondence courses may be obtained by addressing Supervisor of Correspondence Courses, Massachusetts Agricultural College, Amherst, Mass.

All of the town committee men worked untiringly for the success of the fair and to them a large amount of the credit should be given.

Mr. Ernest D. Waid, Manager of the Lewis Farm, with his helpful suggestions and untiring work did much to make the fair a success.

We await suggestions for our next fair. Helpful criticism is always welcome.

"Mating and Breeding of Poultry" is the name of a recent book on the subject of poultry keeping that is published by Orange Judd Company. It deals especially with the mating and breeding of different breeds of poultry according to the Standard of Perfection. It fills a long felt need as poultry fanciers have quite generally kept the secrets of successful breeding of show poultry to themselves. The authors of the book are Harry M. Lamon, Senior Poultryman, Bureau of Animal Industry, United States Department of Agriculture and Rob R. Slocum, Poultryman, Bureau of Animal Industry, both of whom are authorities on matters.

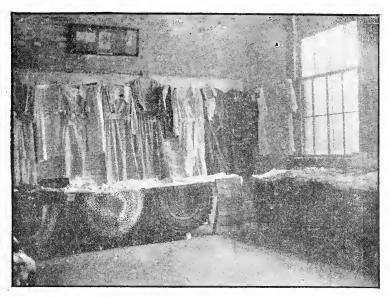
HOME MAKING DEPARTMENT

HIGH GRADE PRODUCTS SHOWN AT COUNTY FAIR

Norfolk County Women Prove That They Are Superior Housewives

We were happily disappointed in our first county fair both in the number and quality of exhibits sent in and in the number of people attending the fair. We appreciate the spirit of the women in the county that contributed their time and exhibits to the fair and it is because of this community and county spirit that the fair was attributed a success by so many people. Norfolk County women will be interested to know that a State Leader who has

by 25 of the 28 towns in the county. The exhibit of canned products was far above average quality, and a canning expert in viewing the display remarked that it was a better exhibition of canned products than was shown at the Eastern States Exposition last year. Town canning exhibits were sent in by Franklin, Walpole, Westwood, South Weymouth, Dover, Foxboro, Millis, and Quincy. These collections were representative of a group of people that had not



ONE CORNER OF THE CLOTHING EXHIBIT AT THE NORFOLK COUNTY FAIR

visited many fairs in the state said that we had the finest exhibit of women's work that she had seen at any fair.

Every class and every lot in the Home Making Department had one or more entries. There was a total of 372 entries of exhibits in the Home Making Department contributed

only a town spirit but a county-wide interest.

Clothing Efficiency Groups in Cohasset, South Weymouth, Quincy, Randolph, Ponkapoag, Stoughton, Dover, Medfield, Walpole, Foxboro, Plainville and South Bellingham exhibited the three garments made in the elementary clothing efficiency course which has been given in seven towns in the county this past season. The possibility of using elementary patterns for more elaborate gowns was demonstrated by the 37 garments which were exhibited as developments of the elementary course.

We are pleased with the success that was attained at our first County Fair, but we will not be satisfied with the same results next year. We realize that errors were made in our first attempt and shall endeavor to correct them next year. We are open to suggestions and would like constructive criticism from the county people. One state worker said that our fair this year was the best agricultural fair that had been held east of Greenfield. Next year we will aim to make it the best fair east of the Pacific Coast.

ONE FIFTH OF THE HOME MAKING PRIZES TAKEN BY WALPOLE WOMEN

Seventeen Other Towns Represented by Prize Winners

The winning of prizes seemed to be a secondary matter to the county women who exhibited at the fair, as everyone seemed willing to do her part toward making the fair a success. We take pleasure in publ'shing the list of names of prize winners in the Home Making Department:

Canning

Best exhibit by towns of canning, no variety duplicated.

1st-Franklin

2nd-Walpole

3rd—Westwood

4th-Weymouth

Best exhibit of canned vegetables, 6 jars, 6 varieties.

1st—Mrs. W. K. Wood, Franklin. 2nd—Miss Mary Hill. Walrole 3rd—Mrs. George Fisher, Walpole

4th—A. L. Huntley, Wollaston Best exhibit of canned fruit, 5 jars, 5 varieties.

1st—Margaret McKenna, Canton 2nd—M. I. Seaveins, So. Braintree.

3rd—E. A. Cushing, Wollaston 4th—Mrs. A. E. Barnes, South Weymouth.

Best exhibit of Jellies, 3 jars, 3 varieties

1st—Mrs. D. H. Regan, Walpole 2nd—Mrs. Harry Howard, Walpole.

3rd—Mrs. Webster Loud, Wey-mouth.

4th—Elizabeth Guild, South Walpole.

Food

Best Loaf of White Bread

1st—Mrs. Emma H. Tucker, Milton

2nd—Mrs. George Wilkins, Plainville

3rd—Mrs. George Green'ay, Plainville.

4th—Mrs. F. B. Brooks, Holbrook. Best Loaf of Raised Bread other than White.

1st—Miss Mary Hill, Walpole.

2nd—Mrs. F. B. Brooks, Holbrook.

Best Two Crust Pie

1st—Mrs. Lena I. Kimball, Weymouth.

2nd—Miss Florence Schaffner, Dover.

3rd—Mrs. F. B. Brooks, Holbrook. 4th—Mrs. Roache, Millis

Best Cake

1st—Mrs. F. B. Brooks, Holbrook. 2nd—Mrs. Charles Savage, Islington,

3rd--Mrs. Wallace Tucker, Milton.

4th—Miss Mary Hill, Walpole.

Best Exhibit of six tried recipes for fireless cooker.

1st—Mrs. F. B. Brooks, Holbrook. 2nd—Mrs. A. E. Barnes, South Weymouth.

3rd—Mrs. O. A. Blaisdell, Wollaston

4th—Mrs Freeman Putney, South Weymouth.

Best Exhibit of Recipes which will utilize a five pound flank steak to the best advantage for a family of four for the greatest number of meals.

1st-Mrs. O. L. Schubert, Plainville.

2nd—Mrs. Evan F. Richardson, Millis.

Clothing

Best exhibit by town groups of three garments made in the clothing efficiency course.

1st-Cohasset

2nd-Foxboro

3rd-Dover

4th-Quincy

Garment showing the best development of the elementary clothing efficiency course.

1st—Mrs. Nettie R. Badger, Quincy.

2nd—Mrs. A. E. Barnes, South Weymouth,

3rd—Mrs. Allan Russell, Walpole 4th—Mrs. Arthur Taylor, South Weymouth.

Mrs. G. W. Rood, Wollaston, Mrs. Nathan Dinsmore, Franklin.

Household Management

Best Home Made Labor Saving Device.

1st—Mrs. Emily Vance, Norwood. 2nd—Mrs. Nathan Dinsmore, Franklin.

3rd—Mrs. Wallace Tucker, Milton.

Best Family Budget, estimated from not less than a six months' record of expenditures.

1st—Mrs. Roscoe West, Needham. 2md—Mrs. W. A. Weiker, Medfield 3rd—Mrs. E. D. Waid. Walpole

4th—Mrs. F. B. Brooks, Holbrook. Snapshot and Plan showing most efficient arrangement of the working equipment in the Kitchen. 1st—Mrs. Austin D. Kilham, Walpole.

Handicraft

Best Exhibit of Crocheting

1st—Mrs. Waldo Pratt, Walpole. 2nd—Miss Adella Drake, Foxboro.

3rd—Mrs. E. J. Shattuck, Norwood.

4th—Mrs George Ames, East Weymouth

4th—Miss Minnie B. Joy, South

Weymouth.

Best Exhibit of Knitting

1st—Mrs. D. K. James, Cohasset. 2nd—Mrs. Abbie Davidson, Forboro.

3rd—Jane R. Bain, Westwood 4th—Mrs. C. B. Gordon, Milton

Best Exhibit of Solid Embroidery
1st—Anna Carlson, Norwood.
2nd—A. R. Gilson, Quincy

3rd—Mrs. W. L. Parker, Islington. 4th—Mrs. George Ames, East Weymouth.

Best Exhibit of Eyelet Embroidery
1st—Lliza F. Haskins, Foxboro
2nd—Mrs. Adelaide C. Tougas,
Canton.

3rd—Mrs. A. C. Scott, East Wey-mouth.

4th—Dorothy G. White, South Braintree.

Best Home Made Rug

1st—Mrs. Stone, South Walpole. 2nd—Mrs. John Fitzhenry, Walpole.

3rd-Mrs. Harry B. Martin, Mil-

4th—Miss Eleanor P. Martin, Milton.

Best Patchwork Quilt.

1st—Mrs. Jessie M. Kandle, Franklin.

2nd—Mrs. Edmund M. Clark, Millis.

3rd—Mrs. Patzold, Westwood.

4th—Mrs. Ella Boyden, South Walpole.

In the July issue of our Farm Bureau bulletin we published a copy of the preservation report card that the women throughout the state have been asked to fill out. We have set 500 as our goal and contribution from Norfolk County. As we previously stated, this statistical information was requested by the Washington office for the purpose of having definite data which will assist in securing funds for the continuation of Home Demonstration work. If you have not received one of those report cards will you not cut it from the July bulletin, fill it out, and send it to the Home Demonstration Agent before October 30th.

HERE IS THE SECRET

Recipes Used by First Prize Winders at the County Fair

No article of food exhibited at the county fair was entitled to a premium unless it was accompanied by the recipe. We are going to try and pass the good work along by publishing these recipes in our monthly bulletin. The recipes are tried but they are not infallible unless a generous amount of common sense is used in the making.

Wirite Bread

3 cups flour

1 T. sugar

1 t. salt

1 T. shortening

1/3 of an yeastcake

2 cups scalded milk

Mix shortening with flour, sugar and salt. To this add the yeast which has been softened in ½ of a cup of lukewarm water and the milk at a lukewarm temperature. Beat until the dough is elastic. Cover and let rise over night. Beat again. Turn out on floured board and knead until light and smooth. Shape, put into pans, let rise again and bake 40 minutes.

EMMA H. TUCKER, Milton

Cream Sponge Cake

Sift together 3 times 1½ cups pastry flour, 2 t. baking powder and ½ t. salt. Beat two eggs for five minutes, add 1 c. sugar, ½ c. milk and 1 t. vanilla. Add the sifted flour to this mixture. Pour in a well buttured tin and bake in a moderate oven.

MRS. F. B. BROOKS, Holbrook

Lemon Pie

Pie Crust—2 cups pastry flour, ¾ c. lard, 1 egg, 1 T. lemon juice, 1 t. salt, sufficient ice-cold water to hold mixture. This is greatly improved if lowed to stand in a cool place 1 mur or more before baking.

Filling—Moisten 2 heaping tablespoons form starch with cold water. Add 2 cups boiling water and cook 2 or 3 minutes on the stove until thick. Add 2 t. butter, 2 cups sugar and beat thoroughly. When cool, add two eggs and the juice and grated rind of two lemons. Bake with two crusts.

MRS. LENA I. KIMBALL, Union St., South Weymouth

Items of Interest

Children are back at school again and in many homes the packing of the children's lunch box is a daily task. What provision has been made in your school for serving a hot lunch to the children who are obliged to carry a cold lunch? Hot lunches in the schools have been established in several of the towns during the past two years. This year we hope to make a special drive along this line and have as our aim at least one hot dish served in every school where children are carrying a cold lunch.

The exhibit of garments made from feed sacks loaned by the Foxboro Thrift Committee attracted much attention at the County Fair. This exhibit was first started two years ago and has been added to gradually by the committee until it is quite complete. Hand woven rugs from old rags is the new feature added to the exhibit this year so now flour bags, feed bags and rag bags are the source of supply for the articles made

Are you interested in reducing the cost of your millinery? Last spring two millinery courses were given in the county and the cost of the finished hats was reduced 50 per cent. Cohasset, Islington, Milton, Holbrook, Randolph and South Walpole have requested fall courses in millinery and plans are under way for starting courses in these towns in the early fall.

We wish to extend our thanks to all who assisted toward making the Norfolk County Fair held recently at the Norfolk County Agricultural School, a success

JUNIOR EXTENSION DEPARTMENT

THE COUNTY FAIR

All who saw the canning exhibit at the Fair will agree that the children in the club work cooperated wonderfully in making the County Fair a success. Out of the fourteen towns in which canning club work has been carried on this summer only one town failed to send exhibits. Each club that exhibited was well represented by a large number of its members.

An especially interesting feature of the exhibit was the canned menus sent by the members of the Weymouth High School club. This was a result of an experiment carried out by the girls to show just how much canning can stand for in the home. An unexpected guest would never phase these girls. From soup to dessert, the menus were complete.

A member of this same club also sent an exhibit of apple products showing just how many uses apples may be put to.

The home economics club members sent in a great many exhibits, both in bread making and sewing entering three dresses made in last year's club as well as some darns and embroidery.

In bread making a great many loaves and pans of biscuits were received.

In the vegetable exhibits every class was filled and the quality of the vegetables was as good as any in the state according to Mr. Farley, who was the judge of the vegetables.

Hathaway White of Westwood made a very exceptional and outstanding record winning six first places and one second on seven vegetable entries that he exhibited in.

The prize winners in vegetables were Hathaway White, Westwood; Adrian Barnes, South Weymouth; Lena Del Prette, South Weymouth; Harry Howard, Walpole; John Jenna, Foxboro; George Downer, Westwood; Charles Guild, South Walpole; Coyle Brothers. Weymouth; Constance Healey, Needham; Florence Perkins, Westwood; Philip Steeves, Foxboro; Fred Russell, Wrentham; Max Green-West Medway; Leon Bennett, South Weymouth; Roger Vinson Jr., Weymouth; Donald Lockery, Walpole; Frederick Robertson, Walpole; Frances Crawley, Needham; Chibar Farm, South Weymouth; R. A. Fisher, Walpole; Catherine West, Westwood; L. Thomas, South Weymouth; Peter Clem, Norwood; Alfred Files, East Weymouth; Gilman Fisher, Walpole.

In canning, breadmaking and sewing the following won prizes: Canning —Catherine Barnes, South Weymouth; Marion Curley, Cohasset; Franklin Canning Club, Katherine Ehnes, Medfield; Nettie Simmons, Dedham; Mil-Medfield: Phelps. Catherine Westwood; Elinor Menchin, Weymouth: Ursula Shaw, Dedham; Oswald Baumgarten, Dedham; Dorothy Healey, Needham; Martha Findlen, Dedham; Evangeline Bent, Medfield: Hazel Day, Westwood; Batchelder, Dedham; Mary Griffin, Medfield; Lillian Pallo, Ellis; Arline Hannaferd, South Weymouth; Lillian Dennison, Dedham; Doris Griffiths, Foxboro; Villa Bailey Medfield: Hazel Our, Weymouth; Eileen Hollis, Weymouth; Marguerite Goode, Dedham: Alice Garrity, Weymouth; Coulter, West Medway; Frances Kroll, Needham.

In breadmaking—Mildred Schwing, Franklin; Francis McGill, West Medway; Frances Tirrell, South Weymouth; Ethel Hadley, Foxboro; Mary Jennings, South Weymouth.

Plans for home economics and poultry clubs are being started in many towns. Has your school or town ever had a club? If not, tell your friends about it and notify your

NORFOLK COUNTY WINNINGS AT EASTERN STATES

Weymouth Canning Club Takes Twenty-five dollar prize. Vegetables from our County Boys Stand Well Upon the list

The Weymouth High School canning club exhibit sent by the Weygirls to the Eastern States Exposition, won the first prize of \$25.00 in its class of club exhibits, competing with exhibits from Connecticut. New Hampshire and Delaware. The Weymouth girls in their exhibit showed several complete dinper menus, a collection of apple products, jams, jellies and conserves, stories, records, and a clever booklet called "Clips From the Canning Club Log." The exhibit was the center of interest in its section of the hall and many appreciative comments were made on the work shown by the girls.

Boys from Norfolk County stood well up on the list of vegetable prize winners. In the collection of ten kinds of vegetables, Adrian Barnes of Weymouth won second place and Hathaway White of Westwood the third. In collections of five, Hathaway White was second and Harry Howard of Walpole, third. Hathaway White also won first on parsnips and second on onions. Max Greenberg of West Medway was first on onions; George Downer of Westwood. first on beets; Coyle Brothers of Weymouth. first on cabbage with Harry Howard, third; on pumpkins, John Jennings of Weymouth earned a third premium.

NORFOLK COUNTY AGRICULTURAL AND HOME MAKING BULLETIN

Annual Meeting
Norfolk County Farm Bureau
Agricultural School
Walpole, Massachusetts
10:00 A. M. - 4:00 P. M.
Saturday, December 4, 1920
Everyone Cordially Invited

PUBLISHED BY

THE

NORFOLK COUNTY AGRICULTURAL SCHOOL WALPOLE, MASSACHUSETTS.

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VOL. III

NOVEMBER, 1920

NO. 35

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TIMELY TOPICS

At a meeting of the Student Council held October 20th the following officers were elected to serve one year: P esident—William C. Law, Foxboro. Secretary—Kenneth F. McCully, Walpole.

Treasurer—Frederick Price, South Weymouth

Executive Committee:

Representing the Seniors, Joseph K. Blanchard, Sherborn.

Juniors—Lester M. Dyer, Stoughton. Sophomores—Andrew K. Rogers, Jr., Milton.

Freshmen (1A)—Eldred B. Wales, West Wrentham.

Freshmen (1B)—Freeman G Bullard, Medway.

Considerable interest in football is being shown by the students during their recreation periods and later we shall expect some interesting interclass games. There are at present two teams working steadily, one composed of members of the Junior and Senior Classes captained by Brayton and the other made up of members of the younger classes and captained by Kovolesky.

Candidates are in the field for a basketball team and from the material on hand we ought to have a pretty good team.

Several boys who are musically inclined have joined forces in an attempt to form an orchestra. The interest is high and the individual talent good so the project bids fair to be successful.

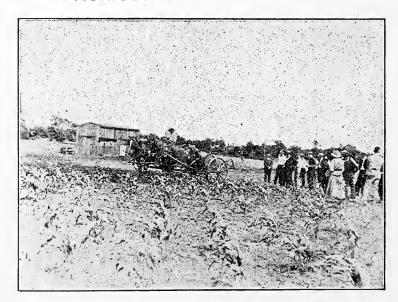
Quite a number of the boys who came to the School this fall live on farms or have worked on farms in the past and have had one cr two years in a high school. Many of these boys are prepared to take up our second year work and a few who have had a large amount of farm practice as well as the cultural training have been advanced to the Junior Class. Our students are divided into the following classes:

Freshmen A.	16
Freshman B.	17
Sophomore	16
Junior	10
Senior	7

At the recent County Fair the Student Athletic Association conducted the booth selling ice cream, tonic and candies. A profit of almost \$70. was realized from the two days sales which is to be used in purchasing athletic equipment. Part of the proceeds have already been expended for a football, soccer ball, two baseballs, a basketball and basketball nets. The students are now making good use of this equipment. Football scrimmages take place each day and it is hoped that before long the basketball court will be ready for use.

We regret to announce the resignation of Prof. Earl Jones, Massachusetts Agricultural College Specialist in Soils and Crops. Prof. Jones leaves us to take up the same work in Ohio. His many friends in Norfolk County wish him the best of success in his new field.

AGRICULTURAL DEPARTMENT



The above cut shows a potato spraying demonstration, one of the many conducted by the County Agricultural Agent this past season. The

results of these demonstrations have proven without a doubt that thorough spraying for blight is essential if potatoes are to be successfully grown in Norfolk County.

DOES IT PAY TO SPRAY?

The final results taken from the demonstration conducted on Wampa-

tuck Farm, Canton, Mr. A. A. Boutelle, Manager, are as follows:

Poison versus Bordeaux

	Total lbs.	Lbs.	Total Bus.	Bus.	
	per 100 ft.	Rot	per acre	Rot	Balance
Spray 4-4-50 and arsenate	150	15	362.5	36.2	326.3
Sprayed arsenate of Lead	150	60	362.5	145.	217.5
		Gain by S	praying	10	8.8 Bus.

Both lots were Green Mountains and from the same source of seed. Those not sprayed with Bordeaux died down fifteen days before those sprayed. The rot found among those sprayed with Bordeaux was on the

rows nearest to the portion sprayed with poison alone.

Mr. Boutelle is to be congratulated upon the yield and upon the fact that he appreciates the value of thorough spraying.

PROTECT FRUIT TREES FROM MICE

R. A. Van Meter Extension Specialist in Pomology, M. A. C.

Mice girdle thousands of young fruit trees every year. The bitter experience last spring of hundreds of Massachusetts fruit growers who had part or all of their young trees girdled by mice working under the snow should bring home to every grower the fact that protecting young trees from mice is just as essential to successful fruit growing as pruning or spraying or any other crchard operations.

Two kinds of protectors, wire and building paper, are in common use and each of them offers dependable protection. Galvanized wire screening with a quarter inch mesh makes an ideal protector and once in place it will last for years without much attention. But at present prices for wire these protectors cost twelve or fifteen cents apiece and this will bar them from most orchards.

A good grade of common building paper or sheathing makes a satisfactory protector. It has been used for years at the College with good results. Of course mice could gnaw through the building paper if they really wanted to, but they very seldom do it. Building paper in Amherst costs \$3.80 per roll of 500 square feet. A roll will cut 300 to 500 protectors which makes them cost about one cent each.

We saw the roll into two 18 inch pieces. From these short rolls pieces may be cut long enough to encircle the trunk. They are tied on with pieces of twine. All grass should be cleared away from the base of the tree and the protector should be set low enough to keep the mice from working under it. Paper protectors should be removed in spring.

Paints and washes should be looked upon with suspicion. They work all right until we get a "mouse year" when the mice gnaw through most of them without hesitation. Furthermore the bark of a young tree is very tender and the grower who uses paints and washes promiscuously is liable sooner or later to let himself in for a lot of trouble. Common lead paints will sometimes kill the bark and do more damage than the mice.

Potato Variety Test for Yield

Mr. Sylvester Smith of Plainville conducted two very interesting tests

Variety per 100 ft.
Dibble's Russet 104
Norcross 60

Both varieties of seed were home grown. There were a number of Dibble's Russet hills found among the Norcross and in each case the for us this season, the one outlined below being especially interesting.

			Balance
Lbs.	Total Bus.	Bus.	Marketable
Rot	per acre	Rot	Potatoes
0	250	0	250
0	147	0	147
Gain			103 Bus.

Dibbles were well grown, bringing the Norcross yield higher than it would have been.

HORTICULTURE

Work in the flower garden at this season is confined principally to a general cleaning up of all refuse and making things snug for the winter. Do not burn any refuse, waste or leaves unless it is infested with insects or disease. All waste vegetable matter should be turned under or put into a compost heap as it is valuable as a humus making material besides adding plant food to the soil.

In the herbaceous borders, transplanting which has not been accomplished should be left until spring as it is a little late to ask a plant to make some new roots before severe weather sets in.

A liberal coating of partly decayed manure spread between the plants will prove very helpful. The plant-food contained in this will be washed into the ground by the late fall rains and become available to the plants as soon as growth commences in the spring.

In favored locations we find Canterbury Bells and Hollyhocks wintering nicely out of doors. The ground between these plants should be mulched, taking care, however, not to cover the tops of the plants too heavily. This latter rule holds good with nearly all the biennials and many of the perennials.

Speaking of biennials, it is a good

plan to have a few plants in reserve in the cold frame to take the place of any that may winter kill. Plants wintered in the cold frame should be attended to regularly in regard to ventilation and watering. Be careful not to over water.

Toward the last of the month, or early in December the mulching of the strawberry bed must be attended to. Where they are easily procured we like to use pine needles for this purpose. They are light, will not blow away, and do not bring in any weed seeds.

If you do not lay down the raspberry canes for the winter tie them up to the stakes or wires. A few evergreen branches placed on the north and northwest side of the raspberry plantation if it is in an exposed position is beneficial. They may be set in the ground a few inches and will assist in preventing the high winds of the latter part of the winter from damaging the canes.

Norfolk County Grangers are to be congratulated upon the quality of their fairs held this season. The County Agent visited most of them and was impressed by the quality and size of exhibits. It seems, however, that a little more care in selecting specimens would tend to give even better results.

APPLE SCAB

Hardly a orchard in the County has escaped the apple scab. The following remarks by R. A. Van Meter on the subject will, I am sure, be of interest to you.

"Remember that the time to get the apple scab which is filling the cull barrels this fall is just before the blossoms open in the spring. Figure what it cost you this year. That will make it easier to stop the farm work next spring long enough to get that spray on it at just the right time. It doesn't pay to grow cull fruit. There's too much competition in that grade."

We wish to thank all who cooperated with the Farm Bureau in the different tests conducted throughout the County this summer. The County Agent will soon be calling again to arrange projects for the coming year and will hope to have the same hearty cooperation awaiting him.

Remember the evening classes in Agriculture. Full notice of the same will be found on the back page of the bulletin.

POULTRY NOTES

INTESTINAL WORMS

In many parts of the country there has been a serious loss from intestinal parasites in poultry. In well fed flocks where half grown chickens are poor and thin or where similar symptons appear in old birds, there is a possibility of extensive infestation of worms.

Treatment: Farmers' Bulletin Number 957, United States Department of Agriculture, prescribes the following treatment:

For 100 birds, steep one pound of finely chopped tobacco stems for two hours in water enough to cover them. Mix the stems and the liquid with one-half the usual ration of ground feed. The day previous to treatment withhold all feed, giving water only. After the birds have been starved 24 hours, feed the medicated mash, and two hours after it is cleaned up give them one-fourth of the usual ration of ground feed mixed with water in which Epsom salts has been dissolved at a rate of 11 ounces for each 100 birds. The treatment should be repeated 10 days later. After the flock has been freed from worms houses and yards should be thoroughly cleaned to reduce the chances of The fowls should be reinfestation.

removed to temporary quarters and all manure, loose dirt, and surface earth to a depth of several inches material The removal removed. should be placed where the cannot get at it, since the roundworm eggs it contains are very resistant and may retain their vitality for as long as a year, possibly longer. It is important that the yards and runs be kept at all times as clean and dry as possible. Manure should not be allowed to accumulate, and wet spots and puddles of stagnant water should be drained, or the location of the yards changed to a place which can be kept in a sanitary condition."

The average October egg yield of the 1,000 hens in the last five annual International Egg Laying Contests, held under the direction of the Connecticut Agricultural College, shows the egg yield to have been a little better than seven eggs per bird. Did yours do as well as that?

The pullets should all be in laying quarters by now and nicely settled which means comfortable and sanitary quarters. The male birds ought to be separated and kept by themselves. Don't forget to supply green feed to the confined birds.

Mr. C. W. Carrick, formerly poultry instructor here and now in the Extension Service of Purdue University, La Fayette, Indiana, is to judge the Chicago the utility classes at Coliseum show this year. means that the birds will be judged for their probable egg production as shown by the yellow pigment in their Hence only two classes will be provided this year, one for the American and one for the Leghorn classes, but as soon as other breeds can be judged intelligently classes will be made for them. At this same show there will be a class for capons. each breed to be judged separately. It is interesting that the larger shows are including the utility classes awith standard bred classes which proves that the trend of the times is to combine the fancy and utility qualities in our poultry. This is surely a good sign.

A comparatively new disease called the foot and head disease has appeared in eastern Colorado. perience seems to indicate that it is a sod disease and appears only when chickens are kept on sod according to Mr. I. E. Newson of the Colorado The Gisease Agricultural College. manifests itself by the formation of blisters on the feet and around the head, followed by scale and distortion of the feet and in many cases blindness and death. Control measures consist in plowing up all sod in the vicinity of the chicken pens cr confining the poultry on plowed ground.

Is there a supply of grit and shells where the hens have free access to them?

If you have some late maturing pullets why not hang a lantern in the coop from nightfall until nine o'clock so that the birds can have access to the mash hopper during that time? They will lay some scarce and high priced eggs which you will not otherwise be able to get from them. Get the habit. Use lights.

The Feathered "Babe Ruth."

On a farm in Seattle the feathered "Babe Ruth" laid three hundred and twenty-six eggs in a year. Her egg yield was worth \$16.00 while she consumed \$4.00 worth of feed, leaving quite a substantial profit for the year.

Her egg record by months is as follows:

August (26th, 1919)	5
September	25
October	28
November	25
December	28
January	31
February	24
March	28
April	28
May	31
June	28
July	25
August (to 25th)	20
Total	326

It is said that about four-fifths of all the poultry products in the country are the result of the work of women. Do the women get four-fifths of the money returns???

Have you cleaned out and refilled the poultry houses with dirt floors? This should have been done a month or more ago.

Regular feeding of good rations and proper management at this season will be a large factor in starting the birds well on the road to high egg production.

Most hens will lay if they are allowed to. Many successes with chickens are made in spite of the owner rather than on account of him.

A fine course has been prepared for the poultrymen in Norfolk County at the evening school.

HOME MAKING DEPARTMENT

ECONOMICS OF GOOD FURNISHING

New Bulletin Issued By the Cornell Reading Course Gives Practical Suggestions for Making the Home Attractive

An attractive home is a vital element in a well-rounded life. Beyond shelter from the weather, and provisions for health, comfort, and convenience, the spirit of man eraves an environment that will refresh and recreate his soul.

A Plan As the Basis For Furnishing

Plans for furnishing should begin with the planning of the house. Only in this way can there be secured the first conditions of efficient furnishing, such as rooms of appropriate size and good proportion, with well-designed openings, usable wall spaces, and agreeable lighting by day and night.

In the old house an effective interior can generally be produced by adjusting the conditions and the contents to a well-considered furnishing scheme. In many cases the problem resolves itself into the elimination of useless and inappropriate furnishings, and the rearranging of those that are left, to accord with the wall spaces and with the size and shape of the rooms.

Procedure For A Survey of Furnishings

A deliberate survey should be made every now and then to see that the best results are secured under the existing conditions and with the available materials. The following points may aid in such a survey:

Elimination

All purposeless furnishings should be removed: that is, everything that does not contribute to the service, or enjoyment, or beauty of the room in question. Plenty of free open space is an attribute of good furnishing.

Arrangement

Order is the central idea in good

- arrangement. Furnishings should be adjusted to the structural lines of the room. In securing this order the following suggestions will be found helpful:
- 1. Rugs should be placed varallel to the floor boundaries.
- 2. The furniture should be arranged in such a way that it will follow and fit the wall spaces.
- 3. Pictures should be hung by vertical wires flat against the wall in relation to the furniture or to a continuous line of a given height.
- 4. Table runners, square table centers or doilies, books, and other straight-line objects should be placed parallel with the edges of the table, the sideboard, or the dresser on which they rest.

Balance in arrangement—Interest may be distributed throughout the room by placing heavy pieces of furniture and significant colorings and designs at a considerable and a pleasing distance one from another.

Grouping of furniture—The pieces of furniture that are used together should be placed in a group. In the living room, a reading center, a music center, or a hearth center, suggests such grouping.

Arrangement in relation to light—Desks, reading seats, sewing chairs, and any kind of furniture needed for close work should occupy well-lighted spaces. Book cases, cabinets, and the like, may occupy the darker and less usable spaces.

Choice of Color

While a skillful choice of color scheme is the most important factor in creating an effective interior, it is most difficult to obtain. Location, exposure, lighting, size and the use of the room, and any fixed color in structural features, such as walls or woodwork, are important factors in

the choice of color schemes. In addition, the following points should be considered:

Color for large masses—Soft, dull, or grayed colors should be used for the large masses; they are more likely to harmonize with each other and to make an effective background for people and furnishings, than are bright colors.

Color for small masses — Bright colors may be used in small masses to accent or to emphasize a color scheme. A vase of flowers, a lamp shade, or a book with a binding of just the right color may serve to complete the idea.

Warm colors—Colors tinged with red, yellow, or orange, such as tan or taupe, sand or brown and many others, produce a genial effect and are especially suitable in rooms with a northern exposure.

Cool colors—Colors tinged with green or blue may produce a restful effect in rooms with a southern exposure or with too much light.

Light colors—Light colors tend to make a room look larger, lighter, and cleaner than do dark colors. Light colors are especially appropriate in a bedroom, a bathroom, or a kitchen and are an economic measure where light needs to be conserved.

Dark colors—Dark colors may tone down a glaring light, but they also tend to make a room look smaller, darker, and less cheerful than do light colors.

Middle Values--Tones that are neither light nor dark are in general appropriate in living rooms.

Unity in the color scheme—While a number of colors, if harmonious, may be used in one room, a prevailing note of one color tends to unify the color scheme. Likewise, similar colors in a series of connecting rooms contribute to unity of effect.

(The remainder of this article will appear in the December issue of this bulletin.)

HOME MAKING DEPARTMENT OF THE WALPOLE WOMAN'S CLUB SELECTS A WINTER PROGRAM

Clothing Chosen as the Phase of Home Economics To Be Studied

Last winter the Home Making Department of the Walpole Woman's Club selected a household management program for the monthly meetings of the department. The meetings proved to be so interesting that the department increased in membership from 15 to 30 during the season. Outside speakers were provided for only a part of the meetings and the success of the meetings where the lo-

cal women took charge in the discussion have made it seem advisable to arrange for more of such meetings this year.

The subject of clothing has been selected for the program this coming winter. Following is an outline of this program which may be suggestive to other clubs which are planning home economic department programs:

Clothing Program 1920—1921

October 19--Study of Fabrics, Miss Helen R. Norton.

Tea

November 16—Remodelling of Clothing, Short Cuts, Thrift Finishes, Mrs. Waldo Pratt.

December 13—Club Day—Dressing for Health.
Dr. Joel Goldthwaite.

January 18—Removing Stains, Mrs. A. D. Kilham; A Clothing Budget. Mrs. E. D. Waid.

February 15—Beauty in Line, Color and Texture, Mrs. Chamberlain. Cooperating with Art Department Tea

March 15—Interior Decorating, Art Department. April 12—Intelligent Buying.

PRIZE WINNING RECIPES

Used By Exhibitors At Norfolk County Fair

Rolled Oats Bread

1½ cups rolled oats (uncooked) 2 teaspoons salt

½ cup sugar

2 cups boiling water

1/4 cup lukewarm water

Mix the oats, salt and sugar. Pour boiling water over the mixture and let stand until lukewarm. Add to this mixture the yeast which has been softened in the lukewarm water. Add the flour, knead, and set in a

1 yeast cake

5 cups flour

warm place. Let rise for two hours. Knead thoroughly, shape in two loaves and let rise until double in bulk. Bake.

Miss Mary B. Hill, Walpole.

Delicious Cake

1 cup butter

2 cups sugar

3 eggs beaten separately

1 cup milk

Follow general directions for cakemaking. Bake in a rather quick oven.

3 full cups pastry flour ½ teaspoon soda

1 teaspoon cream tarter

1 teaspoon vanilla

Mrs. Samuel C. French, Westwood.

Citron Cake

1/3 c. butter or butter substitute

1 cup sugar

2 eggs

½ cup milk

13/4 cups flour

Cream butter and sugar and add beaten yolks of two eggs. Sift flour, salt and baking powder together, twice, add alternately with milk, and beat mixture. Add to this the whites

½ teaspoon salt

3 teaspoons baking powder

1/2 teaspoon flavoring

½ cup citron, nuts or raisins

of the eggs beaten until stiff and the flavoring. Fold in the citron, sliced thin and dusted with flour.

Miss Mary B. Hill, Walpole,

Health Bread

1. cup rolled oats

½ cup bran

1 tablespoon molasses

Put the above ingredients in a bowl and pour over it 2 cups boiling water. Cool until lukewarm and add 1/2 yeastcake softened in 2 tablespoons of lukewarm water. Add about 5 cups bread flour. Cover to prevent crust

1 tablespoon sugar

2 tablespoons melted shortening

1 teaspoon salt

from forming on top and let rise in a warm place until double its bulk. Shape into a loaf. Let rise again and bake 1 hour. Brush the top with butter.

Mrs. F. B. Breoks, Holbrook.

Sponge Cake

3 eggs

3 T. water

1 c. sugar

Beat thoroughly yolks of eggs and sugar. Add water and flavoring. Add flour and baking powder and beat thoroughly.

1 c. flour

1 t. flavoring

1/4 t. salt

½ t. baking powder

Fold in the stiffly beaten whites of eggs. Bake in a moderate oven 30 minutes.

Mrs. Wallace Tucker, Milton.

Simple Cake

Beat together 1 egg and 1 egg yolk. Add 1 cup of sugar and beat with egg beater until light. Add 1 cup sifted pastry flour, 1 heaping teaspoon baking powder and ½ teaspoon salt. Then add ½ cup hot milk in which a piece of butter the size of a walnut has been melted. Add 1 teaspoon of vanilla and bake in a moderate oven in small tins about 15 minutes. This makes sixteen small cakes.

Frosting.

Put 1 cup granulated sugar, 3 tablespoons of water and 1 unbeaten white of egg into a double boiler over boiled water and beat constantly with egg beater until the right consistency to put on cake. Add 1 teaspoon of vanilla.

Mrs. Keyes, Quincy.

ITEMS OF INTEREST

The outlook for establishing more hot school lunches in Norfolk County is encouraging. Already the Home Demonstration Agent has discussed the project with school authorities in seven schools and there seems to be a favorable reaction toward it. The Home Demonstration Agent is glad to furnish recipes, lists and costs of equipment for preparing and serving the lunch, and assist with the organization of the lunch in the schools.

Interest in the clothing efficiency classes is still continuing. Wrentham, Holbrook, Millis, East Walpole, Wellesley, and East Weymouth have requested classes for this fall. Every effort will be made to give this instruction as early as possible, but with the growth of the work and with limited assistance in the Home Making Department it is impossible to give all requests for this work as early consideration as we would like.

Seven towns which received the elementary course in clothing efficiency last year have requested that they be given the development course this coming year. Monthly meetings have been planned with each group when the Home Demonstration Agent will assist the class members in developing the elementary course and give advanced work.

One of the educational features carried on at the Norfolk County Fair was the weighing and measuring of the children who attended. The health committee of the Walpole Woman's Club assisted in carrying out this part of the program and 76 children from 15 towns were weighed during the two days. Twenty of the children weighed were normal, fifty-one were underweight and five were overweight.

Many women who would like to take a correspondence course in home economics do not know Massachusetts Agricultural offers a course of this nature. term begins October 1st and will be started at any time until May 1st. For the first time a certificate will be given for completion of correspondence courses this fall. All fees for courses have been removed to students within the state except in the courses which include material equivalent to a text book for which the \$2.00 fee will still be charged for the course.

A catalogue describing the correspondence course may be obtained by addressing Supervisor of Correspondence Courses, Massachusetts Agricultural College, Amherst, Mass.

At the dedication of the new women's dormitory at the Massachusetts Agricultural College, October 8th, the dormitory was named Abigail Adams.

Thrift is hard headed common sense applied to saving.

Theodore Roosevelt.

JUNIOR EXTENSION DEPARTMENT

HOME ECONOMICS CLUBS BEING ORGANIZED

New Features For Advanced Workers

Community Service an Important Part of the Program

The Home Economics clubs will be the next contests to interest and challenge the young people. Those who were in the clubs last year and the year before will be glad to know that there will be a third year program offered and the chance to work for their gold home economics pin.

The clubs will be organized within the next two months and the club programs will be sent to all interested.

With each year in club work the idea of community service is growing stronger. In several towns already, the clubs have expressed the desire to be of use to their schools and we hope that they will be given a large part of the responsibility of the hot school lunch.

BROCKTON FAIR SHOWING

The few pigs sent from Norfolk County to the Brockton Fair made good showings in their various classes. Six pigs started from various points in the County but only five arrived. One wasn't contented in his crate so he poked out the end, dropped off the truck, and spent a day and night in the woods but was later caught and returned to his owner unharmed. The winnings were as follows:

Fat Hogs—Duroc Jerseys, Thomas Valine, Cohasset, 2nd prize.

Berkshires, Harry Howard, Walpole, 1st prize.

Breeding Sows—Duroc Jerseys, Herbert P. Bates, Beechwood, 1st prize. Hampshires, Frank MacLean, North Cohasset, 1st prize.

Hampshires, John Davenport, Cohasset, 2nd prize.

POULTRY CLUB BEGAN NOV. 1st

The new 1920-1921 Poultry Contest began November 1st and will run until June 1st. Mr. Nodine, State Poultry Club Agent, has prepared a new record book and copies are being sent to all newly enrolled members.

MANY SUCCESSFUL CANNING EX-HIBITS—COUNTY AWARDS TO BE MADE SOON

The summer canning season is over and the fall exhibits show a very good number who have exhibited. We hope that all who have gone this far will complete the club requirement. Weymouth, with a total enrollment of 40, has completed 100% with the record sheets and stories in.

Miss Helen Norris, Asst. State Leader, will be in Norfolk County early in November to help the County Leaders pick out the 1920 winners.

EXHIBITS AT EASTERN STATES

Norfolk County was not fortunate enough to send a demonstration team to the Eastern States Exposition but products went if boys and girls Weymouth sent a Canning didn't Club exhibit which took first prize. This included the menus made out and canned by individuals, a collection of jars, jams, jellies, pickles and apple products. Such slogans as "What shall we have for "A whole dinner in jars," "We believe in community service," "We can for the Weymouth Hospital" "A club of leaders" and others added to the interest. A booklet called "Chips from the Weymouth Canning Log Book" told of club history records. Many people stopped to read the signs, examine jars and ask questions. Favorable comments were overheard on all sides and even the judge remarked that she couldn't find fault with a single jar. speaks well for Miss Brassill's work in Weymouth, doesn't it?

FREE EVENING COURSES in Agriculture Norfolk County Agricultural School Walpole, Massachuselts

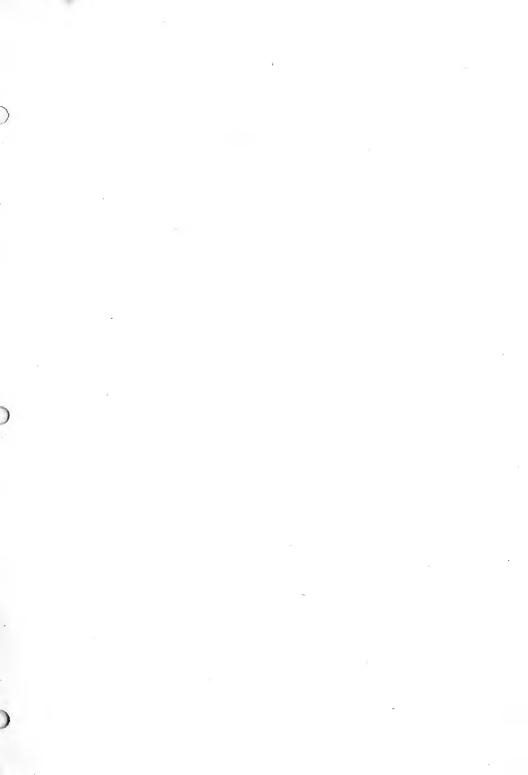
TUESDAY EVENINGS
November 16th, 23rd, 30th and
December 7th

SMALL FRUIT GROWING TREE FRUIT GROWING POULTRY HUSBANDRY SOIL FERTILITY

For particulars address:

Herbert A. Rose,

County Agricultural Agent,
Walpole, Mass.





NORFOLK COUNTY AGRICULTURAL AND HOME MAKING BULLETIN



SECTION OF JUNIOR EXHIBIT AT THE NORFOLK COUNTY FAIR SEPTEMBER, 1920

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DECEMBER, 1920

NO. 36

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TIMELY TOPICS

FARM BUREAU MEETING

A meeting of the Norfolk County Farm Bureau, Inc., was held at the Court House, Dedham, on Saturday, November 27th, at 2.00 P. M. This was the Society which had charge of the agricultural work in Norfolk County previous to the establishment of the Agricultural School and has not held a meeting since 1915. Mr. Willard A. Munson, now Director of Markets, was the County Agricultural Agent with an office in the Registry of Deeds Building, Dedham. Particulars of this meeting will appear in the January issue of the Bulletin.

The School Orchestra has hardly been organized a month but it seems to meet with everyone's approval. Two public appearances have already been made and the members are looking forward to an interesting season. The orchestra consists of: Eldred Wales, piano; Joseph K. Blanchard, first violin; Kenneth McCully, banjo; Roy T. Argood, second violin; Carleton Hersey, drums, and Leland S. Graff, cornet.

The Farmers' Motto:

"United we stick, Divided, we're stuck."

SCHOOL ATHLETICS

This year the enrollment at the School exceeds twice the enrollment of any previous year and, due to this great increase in our student body, we are able for the first time to participate in athletics and other school activities with some degree of success.

Our football team under Captain Brayton of Newton has thus far proved very successful. Competition is keen and the spirit which is displayed is the kind that wins games and assures a future for the school in this branch of activities.

Second only to football in interest comes basketball and although the season has not yet started and the schedule arranged is a strenuous one, we feel that our players will fight their way to success.

The school orchestra and the student council have passed through the uncertain days of organization and are now established factors in the school life. The form of self-government now observed by the students has proved to be both popular and efficient.

Aggies 13—Medway 6

The first game of the season was a closely played contest which ended in a victory for the school. Our team held the ball during most of

the game and outclassed the Medway players. A fumble at one of the critical moments of the game allowed Medway to score.

Aggies 13-North Attleboro 13

The week following the Medway game our boys faced a much stronger opponent in North Attleboro. the first ten minutes of play thirteen points were scored by the Aggies but North Attleboro got its second wind and although our team kept the ball in Attleboro territory during the majority. of the game and often threatened to score, the opposing line held firm and no further gains were made. During the final half our line of defense weakened and Attleboro tied the score by using well directed open field work.

Aggies 47-Millis 0

Millis proved an easy victim for our players who scored at will. The Millis team was greatly outweighed and outclassed and the brevity of the periods was the only thing which prevented our making a larger score.

We have Milton, Medfield, Needham and a return game with North Attleboro yet to play and as all four are strong teams we shall probably experience some fast and closely played games.

EXTRACTS FROM REPORT OF AGRICULTURAL COMMITTEE WALPOLE BOARD OF TRADE

A meeting of the Allied Boards of Trade of Norfolk County with the Walpole Board of Trade was held at the Norfolk County Agricultural School on Friday evening, October 29th. One of Caterer Holman's good banquets was the opening feature of The formal program the evening. opened with a few remarks by the President of the Walpole Board of Trade, Mr. E. O. Christiansen, who introduced Mr. Robert 0. Deputy Commissioner of Education. Mr. Small in his address said "It is plainly shown that as our country as a whole thinks more seriously of the problem of education it has come to believe in the education of all the people for their life work, instead of a few along cultural lines only".

Mr. F. W. Kingman, the first Director of the School, outlined in an interesting manner the establishment and history of the School. Mr. Evan F. Richardson, County Commissioner of Norfolk County and Chairman of the Board of Trustees, outlined the business problems of the School as

they have been met and solved by Trustees. Mr. James Salter. Horticultural Instructor, spoke of the correlation of classroom work with farm projects which is thought to be the key note for the success of vocational agricultural training. close of the more formal part of the program, opportunity was given for an expression of opinion gained by personal observation of the work of the School. A number of men responded in a very enthusiastic manner, expressing themselves as being highly gratified with the progress of the School up to date and of the place it is coming to fill in the County. All seemed to deplore the fact that the work of the School has not been sufficiently well known. A resolution was adopted which had for its purpose the furthering of a more workable relation between the various County Agricultural Schools and the Massachusetts Agricultural College. The meeting came to a close with a very strong feeling on the part of those present that the work of the School and the Farm Bureau Department was a distinct asset to the agriculture of the County and that it should be supported to the fullest extent possible by the County and by the individual efforts of all citizens interested in the welfare of the County.

AGRICULTURAL DEPARTMENT

ORDER EARLY

We wish to emphsize the importance of ordering fertilizers and sup-Every ton of fertilizer plies early. received before the first of March will assist just that much in relieving the congestion of traffic which is sure to come during the early spring months. Another and equally important factor is the purchasing of high grade materials. For example, it takes eight tons of a 1-8-1 fertilizer to equal five tons of a 2-12-2. This means that a decided saving can be brought about by ordering the fertilizer carrying high analysis due to the fact that it costs just as much to transport a low grade mixture as a high grade one. The average purchaser makes the mistake in ordering mixtures for different crops not to note the analysis of the different mixtures. The County Agent will be glad to call and work out fertilizer orders with all who desire such assistance. Just drop a line or phone if you are interested.

CAN YOU AFFORD FOD CULTURE?

Sod culture is a practice of which Massachusetts growers should beware unless their side hills are so steep that no cultivation is permitted, or their land has been so well prepared and the soil is naturally so retentive of moisture that they are sure they can afford to seed down their orchards.

orchard, famous Marshall The which so many blindly follow into sod culture, is on soil naturally very retentive of moisture, and Mr. Marshall had strawberries on the land before he put it in apples Marshall orchard receives as much time and attention as most cultivated orchards. There is as much labor involved in piling up grass for mulch and in spreading after outting. manure on the sod, as in cultivating many orchards. This is a point that orchardists should consider well. Many a grower is imperilling his chance for success by following sod culture without understanding its requirements.

MARKET GARDEN NOTES

H. F. Thompson

The commercial vegetable growers are now being solicited for their seed requirements for 1921. To the home gardener this seems an early date to be making such purchases, but to the commercial vegetable grower it is a common occurrence Many orders are already placed, and in some instances with prices understood subject to any downward change that there may be in market conditions.

It is not at all untimely to be thinking about buying seeds for another year while crops are still growing in the field, this season. As a matter of fact the most careful growers are not only buying seed for 1921 but for 1921 and 1922, where they are sure of the stock, and provided they have not already a supply a year ahead.

The life of seed may be one year or may be ten, according to the variety and method of handling. We do not expect dandelion seed to be good for more than one season, or two at the most. Celery seed may be suitable to use for three or four years. Squash and cucumber seed are said to grow better year by year for a period of five or ten years, although there is no absolute evidence on hand to this effect.

There is no more important job during the whole season than the proper purchase of seed. At the present time there is no other measure of seed quality than the reputation of the seed dealer except a test on the farm. If the buyer can find a seedsman who will refuse to sell him seed of a certain kind and variety because he feels sure that it is not up to standard, he will do well to put some faith in such a man. The day is coming when some better means of determining seed quality will be found than exists at present. A grouping of seed buyers who will purchase in sufficient

quantities to warrant a thorough investigation of the quality of the stock may be one way out. One organization of vegetable growers in Ohio has for several years contracted for certain kinds of seed with growers or reputable dealers, and obtained a fair sample of certain seed stock a year in advance. They have made. sufficient tests to be sure of the quality, and then ordered from the stock which showed the best results. in the field. This practice has resulted in very marked improvement in the quality of the crops produced by this particular association. equal improvement in net profits.

POMOLOGY

Massachusetts Should Grow More Apples

Massachusetts imports one and a half apples for every one she eats. That is, Massachusetts growers raise only two apples to every five sold in Massachusetts markets. But our own apples are the best grown. are the least advertised, and the most indifferently marketed probably, of any that come into the hands of buyers. Throughout New England the apple production is less than half what it might be to supply New England's markets. Why not plant some more trees and take better care of them and market them with more of an eye to the market requirements? It pays the Western grower. much more will it pay the man who raises Greenings and McIntoshes and Baldwins in the native soil of these favorite varieties?

CONCRETE WORK ON THE FARM

The next few months offer excellent opportunities for cement work on the farm. Cement floors, etc., may be laid during the few slack weeks that follow harvesting.

REMARKS ON PRUNING

Next to the man who does not prune at all is the man who prunes without thorough knowledge of the habits of the various trees.

Untrained pruners often remove three-fourths of the current year's fruit buds—the prospective crop—and, not only that, also the fruitbearing wood for several years to come.

The ultimate death of most trees is due to neglect of pruning, coupled with a type of pruning that is worse than neglect.

No pruning is bad, but bad pruning is worse, while good pruning is fertilizer.

Pruning during winter stimulates growth and makes the trees more vigorous. It enables weak trees to regain their health and vigor.

Pruning makes the work of spraying and harvesting easier.

The production of fruit buds for future crops is made possible by pruning the trees so as to admit plenty of sunlight among the branches.

A barren tree can usually be made to bear fruit by proper pruning.

A larger number of old trees have been rejuvenated and large yields secured.

Rejuvenated trees have been raised immediately from no crop at all to over three times the average for the state.

The initial expense of trees rejuvenation is slight and the profits are reasonably certain and prompt.

The usual time to prune is any time after the leaves have fallen.

The above remarks were taken from a number of others on the subject. The Agricultural Agent will be glad to give the addresses of experts in pruning and grafting work to all who write for same. If you wish to do the work yourself you will have the opportunity to attend pruning demonstrations this winter or the Agent will call and work with you personally upon request.

FLORICULTURE NOTES

By the time these notes appear. everything in the garden should be prepared to meet the winter. Plants that require it should be mulched or otherwise protected. Beds of spring flowering bulbs are benefited by a covering of long strawy manure applied after the ground is frozen to a depth of about two inches. the shrubs a good mulching of barnyard manure will prove helpful. How about a supply of well prepared compost for use early next spring? This should be under cover where it will not freeze solid. It will be needed to fill flats next February in which we intend to sow seeds of such varieties of vegetables and flowers as require starting early. A good mixture is composed of two-thirds well decayed sods and one-third well rotted stable dressing to which is added sufficient sharp sand to make it porous.

The potatoes and other root crops which were put into the cellar in October and early in November may require picking over. All decaying or decayed specimens should be thrown out.

This month we should look over the records of crops grown the past season. Did we get as satisfactory a yield as we anticipated? Did we plant enough or too much of any variety? Did we note any new variety that should be given further trial? What changes, if any, should we make for next season? These and many other questions which readily present themselves will assist in making some of our winter evenings interesting and helpful.

The organizers of the Needham Poultry Association are to be congratulated upon the success of their efforts. The country agent attended one of their meetings recently and was impressed by the spirit shown. Already about sixty members are enrolled and plans have been made for their first show to be held the two days following Thanksgiving.

POULTRY NOTES

Report of Ninth Storrs Egg Laying Contest

A pen of Barred Plymouth Rocks from New York State won the ninth annual egg laving contest conducted by Connecticut Agricultural College at Storrs. This is the first time in the history of the laying trials that the same breeder with the same variety of hens has been able to win two years in succession. The winning pen was entered by Jules F. Francais from Westhampton Beach, Long Island. These ten pullets laid 2,234 eggs or an average of more than 220 eggs for each hen in the pen. Steady laying during the last half of the year won this pen its place and the blue ribbon for the year.

There were 1,000 hens in the contest of fourteen different breeds and varieties and from thirteen states and three of the Canadian provinces. They laid a grand total of 161,455 eggs. The following table shows the number of birds in each of the four principal classes, the average individual egg yield for the year, and the general average for all varieties that participated in the contest.

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500 White Leghorns	161.8
200 Plymouth Rocks	163.5
140 Rhode Island Reds	162.4
90 Wyandottes	165.0
70 Miscellaneous	145.6
1,000 Average all breeds	161.5

If you are fortunate enough to have some hens that are now in their molt it would be well to mark them for your coming breeders. The very late molters are the best egg producers and it is from such stock that we wish to raise our future "egg machines."

The Boston Poultry Show will be held this year from December 28th to January 1st, inclusive. Why not secure a program and attend some of the lectures there?

The value of artificial lighting in brooding chicks was recently reported by Mr. Newcomb of Weymouth. His brooder pen was located in one corner of the laving house where "lights" were used on the hens. The light from the pen illuminated the brooder run where the chicks were kept and it was noticed that the chicks raised here were somewhat larger in a few weeks than others of the same age in separate colony houses. Mr. Newcomb believes that "lights" were a big help in bringing these chicks to maturity. He also stated that he would not attempt to keep hens without the aid of "lights" to increase the egg pro-By the use of February duction. hatched pullets and artificial illumination he says he is able to make twice the profit that he could make under ordinary conditions of April hatched pullets and no artificial illumination.

It "cost" ninety eggs per year to keer a pullet. Any egg yield per bird over this amount is considered "profit."

Quite a few losses of poultry from salt poisoning have come to our attention recently. In some cases this has been due to the excess of salt used in some brands of meat scraps. Some have had trouble after having Others have fed salt pork scraps. used a stock feed to mix in with the usual mash ration. Stock feed is quite likely to contain salt and it is a good thing to feed to stock but is dangerous to feed to poultry except in very small quantities and even then its use is not recommended. A few persons who mix salt in with their poultry mashes have lost birds due to the fact that the salt was not finely nulverized before mixing it in with the other ingredients and some of the lumps have been eaten by the birds. The best advice concerning the use of salt in poultry mashes is to leave it alone entirely and do not use stock feeds for poultry mashes.

HOME MAKING DEPARTMENT

CHOOSING TEXTILES AND FURNITURE FOR THE HOME

Cornell Bulletin Considers Them Important Factors in Furnishing the Home

Choice of Textiles for Furnishing

In most dwelling houses some form of woven fabric must be relied upon to temper light and noise, to soften hard lines of wood and glass, and to introduce a decorative note of color or pattern. In the selection of textiles for such use, the following factors are to be considered: color, pattern, texture, and wearing qualities.

Draperies for Doors or Windows

Draperies at doors and windows should preferably be of about the same color value—light or dark—as the wall. They may be of a hue similar to that of the wall or contrasting with it so long as they harmonize. In general, striped or figured draperies are better with plain walls; plain draperies are better with striped or figured walls. Patterns that cover the ground well are usually a better choice than scattered figures.

The up-and-down and the rightand-left of the pattern and the distance between the repetitions of the design, affect the amount of material needed.

Textiles for Upholstery

In the selection of textiles for upholstery, the same general considerations for color and pattern apply as for draperies. While any material that will not fade will usually stand the wear that coves to hangings, the wearing qualities of textiles to be used in upholstery need to be taken into account.

Rugs

Those rugs are usually best, the colors of which are neutral in effect, and which harmonize with the wall color, but are darker in tone.

Rugs may be entirely plain or may

have a plain or figured center or border. For a figured rug some form of conventionalized all-over pattern is usually a good choice. Rugs should be upobtrusive in color and pattern.

Choice of Furniture

Furniture is perhaps the most distinctive and permanent of all the house furnishings. It should be purchased only to fill a need and then with great deliberation.

In the selection of furniture, the points to be considered are: its function or use; its construction or design; and its relation to the room and to the other furnishings.

Use

Such chairs should be selected as will prove to be strong, comfortable seats. Tables should be firm and well-made. Bureaus, cupboards, cabinets, and the like, should be adequate and be supplied with smoothly-running drawers or well-hung doors.

Construction

Excellent workmanship, good woods with dull rather than shiny finish and designs that are agreeable in form and line, are characteristics of desirable furniture.

Oak is a reliable wood for general use and may be finished in many ways. Fine woods, such as mahogany, imply an elegance of setting and service

Painted furniture is especially suitable for bedrooms, and there are many attractive pieces that are suitable for use in other rooms.

Willow is a kindly material for chairs, since it adapts itself comfortably to the body and can be made to conform to any color scheme.

Good springs and padding often add to the comfort of a chair or couch.

Kelation to Other Furnishings

The furniture should harmonize with the woodwork of the room.

A new piece of furniture should always be selected with reference to the other furnishings in order that friendly relations may be maintained.

The furniture of a living room, because of its more constant and varied use, should generally be more substantial than that of a bedroom.

ITEMS OF INTEREST

On October 29th we had the first health lesson of the season at the Foxboro Thrift Center. The meeting was in charge of Mrs. Reed and was attended by 30 women from four of the county towns. We feel that the work taken up on these health days is one of the most important phases of cur clothing work. An effort will be made to arrange for more health lessons in different parts of the county throughout the season.

Classes in fall millinery are being carried on in Cohasset and Milton and 30 women taking these courses are quite fascinated with the making and trimming of hats, and enthusiastic over the fact that they are getting attractive hats with a 50% saving. The women are paying for this instruction which amounts to about 40c per lesson, eight lessons being given in the series. One of the groups has already made arrangements for spring millinery course. This is good work but may not be appreciated by commercial milliners in the the county.

Some towns are alive to the fact that a certain percent of the money obtained from the annual Red Cross drive may be used in furthering local health projects. The Red Cross chapter in Foxboro has donated \$75.00 to assist in continuing the hot school lunch in the grammar schools and \$50.00 has been voted by the Medfield Red Cross chapter for a similar use. This is distinctly a health measure and a worthy cause for the Red Cross to support.

During the past month meetings have been held with eight clothing efficiency groups to assist them in developing the elementary course which they took last year. A new feature introduced at these meetings was the making of men's neckties. Patterns for large and small ties were supplied and the women were quite delighted to obtain the secret for making \$3.00 silk ties for \$.80. Perhaps this notice should be withheld until after Christmas for far be it from us to give the men any advance information regarding their Christmas presents.

The Weymouth District Nursing Association is considering the advisability of establishing a dental clinic for the school children of Weymouth. The Home Demonstration Agent had the pleasure of attending their last meeting when the possibility of organizing a clinic was discussed.

Miss Schmidt, Dental Hygienist for the State Department of Health, attended this meeting with the Home Demonstration Agent and gave some valuable suggestions regarding the organization of dental clinics.

There were five present at the October meeting of the Council of the Home Making Department. A report of work done during the summer months was given by the County and City Home Demonstration Agents. Plans for fall work and the program for the Women's Section of the Annual Farm Bureau meeting in December were discussed.

Don't forget the annual Farm Bureau Meeting, December Everyone who has benefited by this organization and is interested in the work which it is doing should make an effort to be present at this meet-Interesting sectional meetings have been arranged for the morning and a good program scheduled for the afternoon session. We shall look for you at the Norfolk County Agricultural School, December 4th from 10.30-4.00 P. M.

COOK BY RULE

Follow the Recipes Contributed by Our Readers

Favorite Cake

½ c. butter

1½ c. sugar

3 eggs

 $^{2}/_{3}$ c. milk

1 t. cream tartar

½ t. soda

2 c. pastry flour, salt and flavoring

Cream the butter and sugar thoroughly and add the beaten yolks of the eggs. Dissolve the cream of tartar and soda in the milk and add with the flour to the above mixture. Fold in the stiffly beaten whites of the eggs. Flavor with vanilla and bake in one or two layers.

Apple Foam Frosting and Filling:—Beat the whites of two eggs until stiff. Add gradually one c. granulated sugar. Pare one hard apple and grate into the egg. Add a speck cream tartar and salt and ½ t. vanilla.

Mrs. Hatch, Plainville,

Veal Birds

Wipe slices of veal cut as thinly as possible from the leg. Remove bone, skin, and fat. Pound it until 1/4 inch thick and cut in pieces 21/2 inches long by 11/2 inches wide, each piece making a bird. Chop trimmings of meat and a piece of fat salt pork 1 inch square and 1/4 inch thick for every three birds. Add to this mixture one half of their measure of fine cracker crumbs and season with salt, pepper, cayenne, poultry seasoning, lemon juice and onion juice. Moisten with beaten egg and hot water or stock. Spread each piece with thin layer of mixture and avoid having mixture come close to edge. Roll and fasten with skewers. Sprinkle with salt and pepper, dredge with flour and fry in a frying pan until a golden brown. Put in a stewpan, add cream or thin white sauce to half cover the meat. Cook slowly 20 minutes or until tender.

Sour Cream Chocolate Cake

1 c. sour cream

1 t. soda

2 eggs

2 T. coeoa

1 c. sugar

2 c. flour

½ t. vanilla

Follow general directions for making cake.

Mrs. Plinney Blanchard, Canton.

Bavarian Cream

½ pint cream

· 2 eggs

3/4 c. sugar

1 c. hot strong coffee

2 packages minute gelatine

1 t. vanilla

Put gelatine and sugar in a bowl, pour hot coffee over it and let cool. Beat the eggs separately and the cream. Fold together and add the coffee mixture. When partly set, pour in molds and chill.

Mrs. O. L. Schubert, Plainville,

Cream Sponge Cake

2 eggs

½ c. sugar

11/2 T. cold water

3/4 T. cornstarch

3/4 c. pastry flour

3/4 t. baking powder

¼ t. salt

½ t. lemon extract

Beat the yolks of the eggs until thick and lemon colored. Add sugar graqually and beat two minutes. Add the water. Mix and sift the dry ingredients together and add to the first mixture. Fold in the stiffly beaten whites of the eggs and add flavoring. Bake about 20 minutes in moderate oven.

Frosting

1 T. butter, 1 T. cream, 34 c. confectioner's sugar and 1 t. vanilla. Beat ingredients gradually and spread on cake while hot.

Miss Dorothy Place, Westwood,

Divinity Fudge

2 c. white sugar $\frac{1}{2}$ c. corn syrup $\frac{1}{2}$ c. water Whites of two eggs 1 c. chopped nuts Vanilla

Boil sugar, syrup, and water until brittle. Add to stiffly beaten whites of eggs and beat until thick and creamy. Add nuts and vanilla. Pour on buttered plate, cool and cut.

Mrs. Charles Breen, Plainville.

Beef Steak Pie

1 lb. steak ground finely

½ t. salt

½ t. pepper

1 t. Bell's Poultry Seasoning

Mix altogether with enough water to moisten thoroughly. Make pastry as for any pie. Line a shallow pie plate with crust, fill with meat and cover with a top crust. Bake in a hot oven until brown. Serve hot. This amount makes two pies.

Mrs. Herbert Rose, Walpole.

Six days of the clothing specialist's time are to be allowed Norfolk County this coming year. In order to give all of the clothing groups the advantage of one day with Mrs. Reed, a county program has been arranged. On October 18th the advanced clothing groups from Franklin, Quincy, and Walpole met with Mrs. Reed at the Norfolk County Agricultural School for an advanced lesson in clothing efficiency. From 9.30 until 3.00 P. M. everyone was busy asking questions and taking new suggestions. All agreed that they had obtained enough new material at this meeting to keep them occupied for several weeks.

To get the greatest benefit from your money it is important:

- 1. To have a plan.
- 2. To follow the plan.
- 3. To keep records of expenditures.
- 4. To study the records.
- To build a new plan on the basis of lessons learned from the records.

NORFOLK COUNTY WOMEN ARE INDUSTRIGUS CANNERS

Preservation Reports from 420 Women Show That Food is Preserved in Large Quantities

Just to prove that food preservation was not a war time industry we will give you the results of 420 preservation reports taken in Norfolk County this fall. These reports were taken throughout the State at the request of the Federal Government in order to give them definite data regarding one phase of women's activities. Women in 24 towns in the county contributed toward this report and we wish to thank these women and the preservation leaders in these towns in making possible such a splendid report from Norfelk County. Fruit

> Canned 19625 qts. Dried 27 ¾ qts. Jellies 5782 qts. Marmalades 898 qts.

Jams 1319 qts. Butters $198\frac{1}{2}$ qts. Juices $1842\frac{1}{2}$ qts.

Vegetables

Canned 30343½ qts. Dried 242 lbs. Salted 590 qts.

Meat

Canned 295 lbs. Smoked 826 lbs. Salted 995 lbs.

Poultry

Canned 137 qts.

Fish

Salted 16 lbs. Canned 52½ lbs.

Eggs

Preserved 6068½ doz. Piekles—2339 qts.

JUNIOR EXTENSION DEPARTMENT

COUNTY CANNING CHAMPIONSHIP DECIDED

Catherine Barnes of Weymouth and Katherine Ehnes of Medfield Placed First and Second. Other Medfield and Dedham members in the Running. Quality Excellent.

Catherine Barnes of South Weymouth was selected as County Champion in Canning and Katherine Ehnes of Medfield received second place. The club members competing for first place were Oswald Baumgarten, Nettie Simmons and Ursula Shaw from Dedham and Mary Griffin from Medfield.

Miss Norris, Assistant State Club Agent, with the County Club Agents, spent a day judging the canning done by these club members. It was a hard task to choose the winners, especially after seeing the rows and rows of canned products that had been put away by these club members. Each one deserves a great deal of praise for her summer's work and splendid club spirit. They certainly must feel well rewarded every time they look into their cupboards.

Catherine Barnes has done very excellent canning work and has received many prizes at fairs this fall. She is a member of the Weymouth High School Canning Club whose exhibit won first place at the Eastern States Exposition. Catherine has been a Junior Club Leader of one of the Weymouth Banner Clubs and as an all-round good club member hasn't been equalled.

Katherine Ehnes of Medfield was a member of the Medfield canning judging team and has done all the canning at home besides helping at home in many other ways. Katherine has been a member of the Home Economics Clubs and a canning club member for three years.

I am sure that everyone will agree that Catherine Barnes and Katherine Ehnes are fine county representatives.

Thirty seven Norwood boys and girls are doing poultry club work in the 1920-1921 contest. Norwood is a new-old town. In 1915 and 16 club members from the town were leaders. For the past four years nothing has been done. Now the present club members intend to win back the position of leaders.

In Needham, Canton and Bellingham the club girls are to take a greater part of the responsibility of the school lunch. Perhaps this would be a good plan to try in your town.

We have nine Banner Clubs in Canning in the County. Weymouth has four of these Banner Clubs. The other towns represented are Foxboro, Medway, Medfield, Needham and Westwood.

The Norfolk Men's Club recently appointed a Junior Club Committee to act as an advisory committee for the County Club Agents in developing work in Norfolk. This Committee can be of great value by keeping the Agents in touch with local conditions and local needs. If organizations in other towns would follow this example it would be a big step forward in the club work development.

Elinor Menchin, a member of the Weymouth High School Club, has canned three hundred and fifty five jars of products. Her records show that her canning is valued at \$164.25. She has expended in her summer's work \$56.55. This is a record well worth while and I am sure that she feels well repaid.

JUNIORS' EXHIBIT AT THE BOSTON POULTRY SHOW

Club Members to have Big Stage for Their Stock at the Boston Poultry Show

Club members will have a chance to show other people what can be done with poultry in Massachusetts. The main stage at Mechanics Building will be used for the Junior Department, giving a chance to display birds, home made equipment, eggs, and club collections. The club collections or exhibits will give a chance

to show what boys and girls in any one town are doing and will be a revelation to many grown-ups. The Boston Show comes December 28th, 29th, 30th, 31st, 1920, and January 1st, 1921, at Mechanics Building. Entries close December 6th, with W. B. Atherton, Secretary, 165 Tremont Street, Boston.

HOME ECONOMICS CLUB LEADERS TO MEET

Boston meeting December 13 to Discuss the 1921 Work in Norfolk County

Norfolk and Middlesex counties are again joining in a special training meeting for home economics club leaders, prior to the opening of the new club contest.

Local, county and state leaders, together with a number of boy and girl club members will be present to lead discussions and answer questions.

"Mock Club Meetings Demonstrations," and discussions of "Club Work as a Part of the Town Program" are some of the subjects on the program.

The meeting will be held Saturday, December 13, from 10 to 1, at the

State House, Boston, and all people interested in the welfare of our boys and girls work are invited to attend.

The Norfolk County Club News is again being published after a delay of three months.

Owing to a government ruling, the club news is no longer accepted as a franked publication but is now entered as second class mail matter. The issue for this month has eight pages with a general summary of all the fall club work and copies are being sent to all regularly enrolled club members.

MISS NORRIS, ASSISTANT STATE CLUB LEADER, RESIGNS

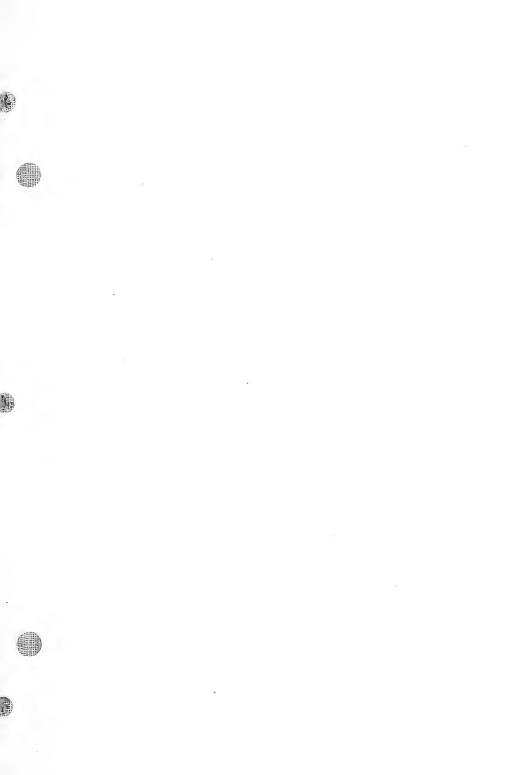
Miss Helen M. Norris, Assistant State Club Leader, resigned her position December 1st and will be married Christmas day to Mr. Roswell Henninger of Philadelphia, Pa.

Miss Norris has been Ass't State Leader for four years and in that ti e has done much to develop the canning and home economics club work in Massachusetts. She was well known to Norfolk County Club members and leaders, having been present at many county field days and local exhibits, and will be greatly missed during the coming club seasont.

The following towns are forming Home Economics Clubs: Braintree, Conton, Dedham, Foxboro, Holbrook, Mcdfield, Medway, Needham, Norfolk, Norwood, Quincy, Randolph, Weymouth, Wrentham and Westwood. Dover and Milton are also considering the possibilities of starting clubs in their schools. In several towns

there will be two clubs, the second and third year girls helping with the leadership.

Sharon is one of the new towns taking up poultry club work. Twelve members are now enrolled and a thriving organization perfected.



ANNUAL MEETING

FARM BUREAU DEPARTMENT

NORFOLK COUNTY AGRICULTURAL SCHOOL WALPOLE, MASS., SATURDAY, DECEMBER 4, 1920

PROGRAM

Sectional Meetings 10 A. M. to 12 M. General Meeting, 1.30 P. M. to 4 P. M.

- 1. Community Singing
- 2. Short Reports by Farm Bureau Agents.
- 3. Selections by the School Orchestra.
- Co-operative Buying—Raiph H. Gaskill, Manager Essex County Farmers' Cooperative Buying Association.
- 5. Community Singing
- Feeding the Family for Health— Miss Bertha Wood, Director of the Food Clinic at the Boston Dispensary.
- Junior Club Activities—George L. Farley, State Leader of Junior Extension work.

Do not conflict this meeting with the one held at Dedham on November 27th as this is the Annual Meeting of the present Farm Bureau.



